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INTERIM STATUS OPERATIONAL MANAGEMENT PLAN 1 AUGUST 1985 NSWC INDIAN
HEAD MD
8/1/1985
NSWC INDIAN HEAD

Interim Status Operational Management Plan



**Department of the Navy
Naval Explosive Ordnance
Disposal Technology Center
Indian Head, Maryland**

**to
State of Maryland
Department of Health and Mental Hygiene
August 1985**



TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>
A	PART A PERMIT APPLICATION	A-1
B	FACILITY DESCRIPTION	B-1
B-1	General Description	B-1
B-2	Topographic Maps and Appurtenant Information	B-4
B-3	Location/Information	B-9
B-3a	Environmental Information	B-9
B-3b	Flood Plain Standard	B-9
	B-3b(1) Flood Plain	B-9
	B-3b(2) Flood Plain Waiver	B-10
B-4	Traffic Information	B-12
C	WASTE CHARACTERISTICS	C-1
C-1	Chemical and Physical Analysis	C-1
C-1a	Containerized Wastes	C-1
C-1b	Waste in Tanks	C-2
C-2	Waste Analysis Plan	C-2
C-2a	Parameters and Rationale	C-2
C-2b	Test Methods	C-2
C-2c	Sampling Methods	C-2
C-2d	Frequency of Analysis	C-4
C-2e	Requirements for CHS Generated Off-Site	C-4
C-2f	Additional Requirements for Ignitable, Reactive, or Incompatible Wastes	C-4
C-3	Quality Assurance	C-4
	Appendix C.1 Annual Reports	C.1-1
	Appendix C.2 Pink Water Verification	C.2-1
	Appendix C.3 Quality Assurance Plan	C.3-1
D	PROCESS INFORMATION	D-1
D-1	Controlled Hazardous Substances Accumulation	D-7
D-2	Controlled Hazardous Substances Treatment	D-7
	Appendix D.1 Tank Data Sheet	D.1-1

TABLE OF CONTENTS
(continued)

<u>Section</u>	<u>Title</u>	<u>Page</u>
E	GROUNDWATER MONITORING	E-1
F	PROCEDURES TO PREVENT HAZARDS	F-1
F-1	Security	F-1
F-1a	Security Procedures and Equipment	F-1
F-1a(1)	Twenty-four Hour Surveillance System	F-1
F-1a(2)	Barrier and Means to Control Entry	F-2
F-1a(3)	Warning Signs	F-2
F-2	Inspection Requirements	F-2
F-2a	General Inspection Requirements	F-2
F-2a(1)	Types of Problems	F-3
F-2a(2)	Frequency of Inspection	F-3
F-2b	Specific Process Inspection Requirements	F-3
F-2b(1)	Accumulation Tank Inspection	F-3
F-3	Preparedness and Prevention Requirements	F-6
F-4	Preventive Procedures, Structures, and Equipment	F-6
F-4a	Unloading Operations	F-6
F-4b	Runoff	F-7
F-4c	Water Supplies	F-7
F-4d	Equipment and Power Failures	F-7
F-4e	Personnel Protection Equipment	F-7
F-5	Prevention of Reaction and Precautions for Handling Reactive Wastes	F-7
Appendix F.1	Equipment and Personnel Protection Equipment Available at NAVEODTECHCEN, Building 2019	F.1-1
Appendix F.2	Selection and Use of Protective Clothing and Equipment	F.2-1
G	CONTINGENCY PLAN	G-1
G-1	General Information	G-1
G-1a	Location	G-1
G-1b	Mission	G-1

TABLE OF CONTENTS
(continued)

<u>Section</u>	<u>Title</u>	<u>Page</u>
G-2	Emergency Coordinators	G-2
G-3	Implementation of the Contingency Plan	G-2
G-4	Emergency Response Procedure	G-2
G-4a	Notification	G-2
G-4b	Identification of Controlled Hazardous Substances	G-3
G-4c	Assessment	G-3
G-4d	Control Procedures	G-4
	G-4d(1) 100-year Rainstorm or Hurricane	G-4
	G-4d(2) Electrical Storm	G-8
	G-4d(3) Fire or Explosion	G-9
	G-4d(4) Chemical Spill	G-9
	G-4d(5) Personnel Physical Injury	G-9
G-4e	Prevention of Recurrence or Spread of Fires, Explosions, or Releases	G-10
G-4f	Storage and Treatment of Released Material	G-10
G-4g	Incompatible Waste	G-10
G-4h	Post-Emergency Equipment Maintenance	G-10
G-4i	Container Spills and Leakage	G-11
G-5	Emergency Equipment	G-11
G-6	Coordination Agreements	G-11
G-6a	Police Protection	G-11
G-6b	Fire Protection	G-12
G-6c	Hospitals and Medical Support	G-12
G-6d	Contractors	G-13
G-7	Evacuation Plan	G-13
G-7a	Evacuation Procedures	G-13
G-7b	Evacuation of the CHS (Pink Water) Management Area	G-14
G-8	Required Reports	G-14
Appendix G.1	NAVORDSTA Mutual Assistance Agreements	G.1-1
Appendix G.2	Contractors Registered with the U.S. Coast Guard	G.2-1

TABLE OF CONTENTS
(continued)

<u>Section</u>	<u>Title</u>	<u>Page</u>
H	PERSONNEL TRAINING	H-1
H-1	Outline of the Training Program	H-1
H-1a	Job Title and Duties	H-1
H-1b	Training Content, Frequency, and Technique	H-1
H-2	Implementation of Training Program	H-4
Appendix H.1	Responsibilities and Duties of Key Personnel Involved with Controlled Hazardous Substance Activities	H.1-1
I	CLOSURE PLAN, POST-CLOSURE PLAN, AND FINANCIAL REQUIREMENTS	I-1
I-1	General	I-1
I-1a	Closure Performance Standard	I-1
I-1b	Partial and Final Closure Activities	I-1
I-1c	Maximum Waste Inventory	I-1
I-1d	Inventory Removal, Disposal, or Decontamination of Equipment	I-2
I-1e	Schedule of Closure	I-2
I-2	Closure Cost Estimate	I-3
I-3	Financial Assurance Mechanism for Closure	I-3
I-4	Post-Closure Cost Estimate	I-6
I-5	Financial Assurance Mechanism for Post-Closure Care	I-6
I-6	Liability Requirements	I-6
J	OTHER ENVIRONMENTAL LAWS	J-1
J-1	NPDES Status	J-1
J-2	Cultural Resources	J-1
J-3	Closed Sites	J-2

LIST OF TABLES

<u>Table No.</u>	<u>Title</u>	<u>Page</u>
C-1	Typical Parameters, Rationale, and Methods for Determination of Pink Water Waste	C-3
F-1	Inspection Schedule	F-4
G-1	Controlled Hazardous Substances Pollution Control Equipment and Location	G-5
H-1	Personnel Training Requirements	H-2
H-2	Hazardous Waste Overview Seminar	H-3
H-3	Hazardous Waste Facility Operators Course	H-5
H-4	Topics for Health and Safety Course	H-6
H-5	Topics for Contingency Planning and Emergency Response Course	H-6
I-1	Schedule of Closure Activities	I-4
I-2	Closure Cost Estimate	I-5

LIST OF FIGURES

<u>Figure No.</u>	<u>Title</u>	<u>Page</u>
B-1	Geographic Location Map NAVEODTEHCEN, Indian Head, Maryland	B-2
B-2	USGS Topographic Map (Indian Head Quadrangle), NAVEODTEHCEN, Indian Head, Maryland	B-3
B-3	Location of 100-year Flood Plain, NAVEODTEHCEN, Indian Head, Maryland	B-5
B-4	NAVEODTEHCEN, Indian Head, Maryland, Organization Chart	B-6
B-5	Surrounding Land Uses and Population, NAVEODTEHCEN, Indian Head, Maryland	B-7
B-6	Wind Rose	B-8
D-1	NAVEODTEHCEN Pink Water Tank	D-2
D-2	NAVEODTEHCEN Pink Water Tank	D-3
D-3	NAVEODTEHCEN Range 3	D-4
D-4	Pink Water Treatment Tank and Range 3 -- Thermal Treatment of Explosive Waste	D-5
D-5	Pink Water Treatment System	D-6
F-1	Typical Inspection Form for Pink Water Management Area	F-5
H-1	Typical Personnel Training Record	H-7

A — Part A Permit Application

Section: A
Revision: 0
Date: 30 July 1985

SECTION A

PART A PERMIT APPLICATION

The Naval Explosive Ordnance Disposal Technology Center (NAVEODTEHCEN) submitted Part A of a RCRA permit application to the U.S. EPA in November 1980 for designation as a controlled hazardous substance management facility with interim status. On 6 October 1981, EPA advised NAVEODTEHCEN that pursuant to Section 3005 of the Resource Conservation and Recovery Act, the application did not demonstrate that the facility was one that was required to have a permit under Section 3005 of the Act, and the application was returned. However, an identification number was issued by the Environmental Protection Agency (EPA), and an interim permit (No. A223A) was subsequently issued by the State of Maryland. The NAVEODTEHCEN is not contiguous to the controlled hazardous substances (CHS) facilities at the Naval Ordnance Station, which operates under permit No. A223.

Under Code of Maryland Title 10, Subtitle 51, 10.51.01.04 Exclusions A. (2), "Industrial wastewater discharges that are point source discharges are permitted pursuant to Section 402 of the Clean Water Act, as amended, or are permitted pursuant to Health-Environment Article, Sections 9-322 through 9-324." Surface discharge IW 49 at NAVEODTEHCEN is covered under National Pollution Discharge Elimination System permit MD 0003158.

The Part A application submitted in November 1980 listed Building 2085 as a storage facility for CHS. As this building has never been used for storage of CHS, and NAVEODTEHCEN has elected to use this building for other purposes, it is not listed in Section A of this document.

FORM 1 GENERAL	 EPA	U.S. ENVIRONMENTAL PROTECTION AGENCY GENERAL INFORMATION <i>Consolidated Permits Program</i> <i>(Read the "General Instructions" before starting.)</i>	I. EPA I.D. NUMBER <div style="border: 1px solid black; padding: 2px; display: inline-block;"> F M D 4 1 7 0 0 9 0 0 0 1 </div>
CAPC ITEMS <div style="border: 1px solid black; padding: 2px;"> I. EPA I.D. NUMBER II. FACILITY NAME V. FACILITY MAILING ADDRESS VI. FACILITY LOCATION </div>		PLEASE PLACE LABEL IN THIS SPACE	
		GENERAL INSTRUCTIONS If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent (the area to the left of the label space lists the information that should appear), please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete items I, III, V, and VI (except VI-B which must be completed regardless). Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.	

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column. If the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms.

SPECIFIC QUESTIONS	MARK 'X'			SPECIFIC QUESTIONS	MARK 'X'		
	YES	NO	FORM ATTACHED		YES	NO	FORM ATTACHED
A. Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S.? (FORM 2A)		X		B. Does or will this facility (either existing or proposed) include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B)		X	
C. Is this a facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C)	X			D. Is this a proposed facility (other than those described in A or B above) which will result in a discharge to waters of the U.S.? (FORM 2D)		X	
E. Does or will this facility treat, store, or dispose of hazardous wastes? (FORM 3)	X		X	F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)		X	
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)		X		H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)		X	
I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X		J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X	

III. NAME OF FACILITY

1	SKIP	NAVAL EOD TECHNOLOGY CENTER
---	------	-----------------------------

IV. FACILITY CONTACT

A. NAME & TITLE (last, first, & title)	B. PHONE (area code & no.)
2 FRAUENFELDER, H. J. FAC MGR	3 0 1 7 4 3 4 5 1 4

V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX	B. CITY OR TOWN	C. STATE	D. ZIP CODE
3 FACILITIES MANAGER CODE 09	4 INDIAN HEAD	MD	2 0 6 4 0

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER	B. COUNTY NAME	C. CITY OR TOWN	D. STATE	E. ZIP CODE	F. COUNTY CODE (if known)
5 STUMP NECK ROAD	CHARLES	INDIAN HEAD	MD	2 0 6 4 0	

A. FIRST					B. SECOND				
7 9 7 1 1 (specify) NATIONAL SECURITY					7 8 9 2 2 (specify) RESEARCH & DEVELOPMENT				
C. THIRD					D. FOURTH				
7 (specify)					7 (specify)				

OPERATOR INFORMATION									
A. NAME									
8 FRAUENFELDER, H. J. FAC MGR									
B. Is the name listed in Item VIII-A also the owner? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO									

C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box. If "Other", specify.)					D. PHONE (area code & no.)				
F - FEDERAL S - STATE P - PRIVATE M - PUBLIC (other than federal or state) O - OTHER (specify)					F (specify) A 30 1 7 4 3 4 5 1 4				

E. STREET OR P.O. BOX									
FACILITIES MANAGER CODE 09									

F. CITY OR TOWN					G. STATE		H. ZIP CODE		IX. INDIAN LAND	
B INDIAN HEAD					M D		2 0 6 4 0		Is the facility located on Indian lands? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	

X. EXISTING ENVIRONMENTAL PERMITS									
A. NPDES (Discharges to Surface Water)					D. PSD (Air Emissions from Proposed Sources)				
9 N M D 0 0 0 3 1 5 8					9 P				
B. UIC (Underground Injection of Fluids)					E. OTHER (specify)				
9 U					8 4 - 1 4 7 - A P (specify) Open burning permit				
C. RCRA (Hazardous Wastes)					E. OTHER (specify)				
9 R A 2 2 3 A					8 4 - 1 6 8 - A P (specify) Air permit				

MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS (provide a brief description)

Mission. Conduct research, development, test and evaluation in technical matters concerning Explosive Ordnance Disposal (EOD) and render safe procedures for conventional and special weapons, guided missiles, biological and chemical munitions, tools, equipment and techniques, both United States and foreign, as required to discharge the Navy's responsibility to the Department of Defense and to the Departments of the Army and the Air Force, and other agencies, in matters relating to EOD.

XIII. CERTIFICATION (see instructions)									
I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.									
A. NAME & OFFICIAL TITLE (type or print)					B. SIGNATURE			C. DATE SIGNED	
R.L. Masten Commanding Officer					RLM			9/30/85	
COMMENTS FOR OFFICIAL USE ONLY									
C C									

FOR OFFICIAL USE ONLY

APPLICATION APPROVED DATE RECEIVED (yr. mo. & day) COMMENTS

II. FIRST OR REVISED APPLICATION

Place an "X" in the appropriate box in A or B below (mark one box only) to indicate whether this is the first application you are submitting for your facility or a revised application. If this is your first application and you already know your facility's EPA I.D. Number, or if this is a revised application, enter your facility's EPA I.D. Number in Item I above.

A. FIRST APPLICATION (place an "X" below and provide the appropriate date) 1. EXISTING FACILITY 2. NEW FACILITY B. REVISED APPLICATION (place an "X" below and complete Item I above) 1. FACILITY HAS INTERIM STATUS 2. FACILITY HAS A RCRA PERMIT

III. PROCESSES - CODES AND DESIGN CAPACITIES

A. PROCESS CODE - Enter the code from the list of process codes below that best describes each process to be used at the facility. Ten lines are provided for entering codes. If more lines are needed, enter the code(s) in the space provided. If a process will be used that is not included in the list of codes below, then describe the process (including its design capacity) in the space provided on the form (Item III-C).

B. PROCESS DESIGN CAPACITY - For each code entered in column A enter the capacity of the process.

- 1. AMOUNT - Enter the amount.
- 2. UNIT OF MEASURE - For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.

PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY	PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Storage:			Treatment:		
CONTAINER (barrel, drum, etc.)	S01	GALLONS OR LITERS	TANK	T01	GALLONS PER DAY OR LITERS PER DAY
TANK	S02	GALLONS OR LITERS	SURFACE IMPOUNDMENT	T02	GALLONS PER DAY OR LITERS PER DAY
WASTE PILE	S03	CUBIC YARDS OR CUBIC METERS	INCINERATOR	T03	TONS PER HOUR OR METRIC TONS PER HOUR
SURFACE IMPOUNDMENT	S04	GALLONS OR LITERS			
Disposal:			OTHER (Use for physical, chemical, thermal or biological treatment processes not occurring in tanks, surface impoundments or incinerators. Describe the processes in the space provided; Item III-C.)	T04	GALLONS PER DAY OR LITERS PER DAY
INJECTION WELL	D79	GALLONS OR LITERS			
LANDFILL	D80	ACRE-FEET (the volume that would cover one acre to a depth of one foot) OR HECTARE-METER			
LAND APPLICATION	D81	ACRES OR HECTARES			
OCEAN DISPOSAL	D82	GALLONS PER DAY OR LITERS PER DAY			
SURFACE IMPOUNDMENT	D83	GALLONS OR LITERS			
UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE CODE
GALLONS	G	LITERS PER DAY	V	ACRE-FEET	A
LITERS	L	TONS PER HOUR	D	HECTARE-METER	F
CUBIC YARDS	Y	METRIC TONS PER HOUR	W	ACRES	B
CUBIC METERS	C	GALLONS PER HOUR	E	HECTARES	G
GALLONS PER DAY	U	LITERS PER HOUR	H		

EXAMPLE FOR COMPLETING ITEM III (shown in line numbers X-1 and X-2 below): A facility has two storage tanks, one tank can hold 200 gallons and the other can hold 400 gallons. The facility also has an incinerator that can burn up to 20 gallons per hour.

DUP

LINE NUMBER	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY	FOR OFFICIAL USE ONLY	LINE NUMBER	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY	FOR OFFICIAL USE ONLY
		1. AMOUNT (specify)	2. UNIT OF MEASURE (enter code)			1. AMOUNT	2. UNIT OF MEASURE (enter code)
X-1	S 0 2	600	G	5			
X-2	T 0 3	20	E	6			
1	S 0 1	125	G	7			
2	S 0 2	1,223.5	G	8			
3				9			
4				10			

T04 2,000 gallons/day - treatment of pink water by passage through carbon adsorption unit.

T04 60 lbs/event - open burning of explosive residue and explosive contaminated filter material.

IV. DESCRIPTION OF HAZARDOUS WASTES

A. EPA HAZARDOUS WASTE NUMBER - Enter the four-digit number from 40 CFR, Subpart D for each listed hazardous waste you will handle. If you handle hazardous wastes which are not listed in 40 CFR, Subpart D, enter the four-digit number(s) from 40 CFR, Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.

B. ESTIMATED ANNUAL QUANTITY - For each listed waste entered in column A estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in column A estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.

C. UNIT OF MEASURE - For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

ENGLISH UNIT OF MEASURE CODE
POUNDS P
TONS T

METRIC UNIT OF MEASURE CODE
KILOGRAMS K
METRIC TONS M

facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.

D. PROCESSES

1. PROCESS CODES:

For listed hazardous waste: For each listed hazardous waste entered in column A select the code(s) from the list of process codes contained in Item III to indicate how the waste will be stored, treated, and/or disposed of at the facility.

For non-listed hazardous waste: For each characteristic or toxic contaminant entered in column A, select the code(s) from the list of process codes contained in Item III to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed hazardous wastes that possess that characteristic or toxic contaminant.

Note: Four spaces are provided for entering process codes. If more are needed: (1) Enter the first three as described above; (2) Enter "000" in the extreme right box of Item IV-D(1); and (3) Enter in the space provided on page 4, the line number and the additional code(s).

2. PROCESS DESCRIPTION: If a code is not listed for a process that will be used, describe the process in the space provided on the form.

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER - Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

1. Select one of the EPA Hazardous Waste Numbers and enter it in column A. On the same line complete columns B, C, and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.
2. In column A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In column D(2) on that line enter "included with above" and make no other entries on that line.
3. Repeat step 2 for each other EPA Hazardous Waste Number that can be used to describe the hazardous waste.

EXAMPLE FOR COMPLETING ITEM IV (shown in line numbers X-1, X-2, X-3, and X-4 below) - A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operation. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

LINE NO.	A. EPA HAZARDOUS WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES	
				1. PROCESS CODES (enter)	2. PROCESS DESCRIPTION (If a code is not entered in D(1))
X-1	K 0 5 4	900	P	T 0 3 D 8 0	
X-2	D 0 0 2	400	P	T 0 3 D 8 0	
X-3	D 0 0 1	100	P	T 0 3 D 8 0	
X-4	D 0 0 2				included with above

EPA I.D. NUMBER (enter from page 1)															FOR OFFICIAL USE ONLY									
W M D 4 1 7 0 0 9 0 0 0 1 T/A C															W T/A C									
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15															16 17 18 19 20 21 22 23 24 25 26 27 28 29 30									

IV. DESCRIPTION OF HAZARDOUS WASTES (continued)

LINE NO.	A. EPA HAZARD. WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES	
				1. PROCESS CODES (enter)	2. PROCESS DESCRIPTION (if a code is not entered in D(1))
	23 - 24 - 25 - 26 - 27		28	29 - 30 - 31 - 32 - 33 - 34	
1	K 0 4 5	1500 <i>plus carbon</i>	P	S 0 1	
2	K 0 4 7	25000 <i>pink water</i>	P	S 0 2 T 0 4	
3	D 0 0 3	500	P	S 0 1 T 0 4	
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					

E. USE THIS SPACE TO LIST ADDITIONAL PROCESS CODES FROM ITEM D (1) ON PAGE 3.

EPA I.D. NO. (enter from page 1)												
B											T/C	
F	M	D	4	1	7	0	0	9	0	0	1	6
1	2	3	4	5	6	7	8	9	10	11	12	13

V. FACILITY DRAWING

All existing facilities must include in the space provided on page 5 a scale drawing of the facility (see instructions for more detail).

VI. PHOTOGRAPHS

All existing facilities must include photographs (*aerial or ground-level*) that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas (*see instructions for more detail*).

IV. FACILITY GEOGRAPHIC LOCATION

LATITUDE (degrees, minutes, & seconds)						LONGITUDE (degrees, minutes, & seconds)								
3	8	3	2		3	2	0	7	7	1	4		1	5
63	66	67	68		68	71	72	74	76	78	79		77	79

VIII. FACILITY OWNER

- ☒ A. If the facility owner is also the facility operator as listed in Section VIII on Form 1, "General Information", place an "X" in the box to the left and skip to Section IX below.

B. If the facility owner is not the facility operator as listed in Section VIII on Form 1, complete the following items:

1. NAME OF FACILITY'S LEGAL OWNER										2. PHONE NO. (area code & no.)										
C																				
E																				
12	13	3. STREET OR P.O. BOX										35	36	37	38	39	40	41	42	43
4. CITY OR TOWN										5. ST.			6. ZIP CODE							
C											C									
F											G									
45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63		

IX. OWNER CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME (print or type)	B. SIGNATURE	C. DATE SIGNED
R. L. Masten Commanding Officer	RLM-L	9/30/85

X. OPERATOR CERTIFICATION

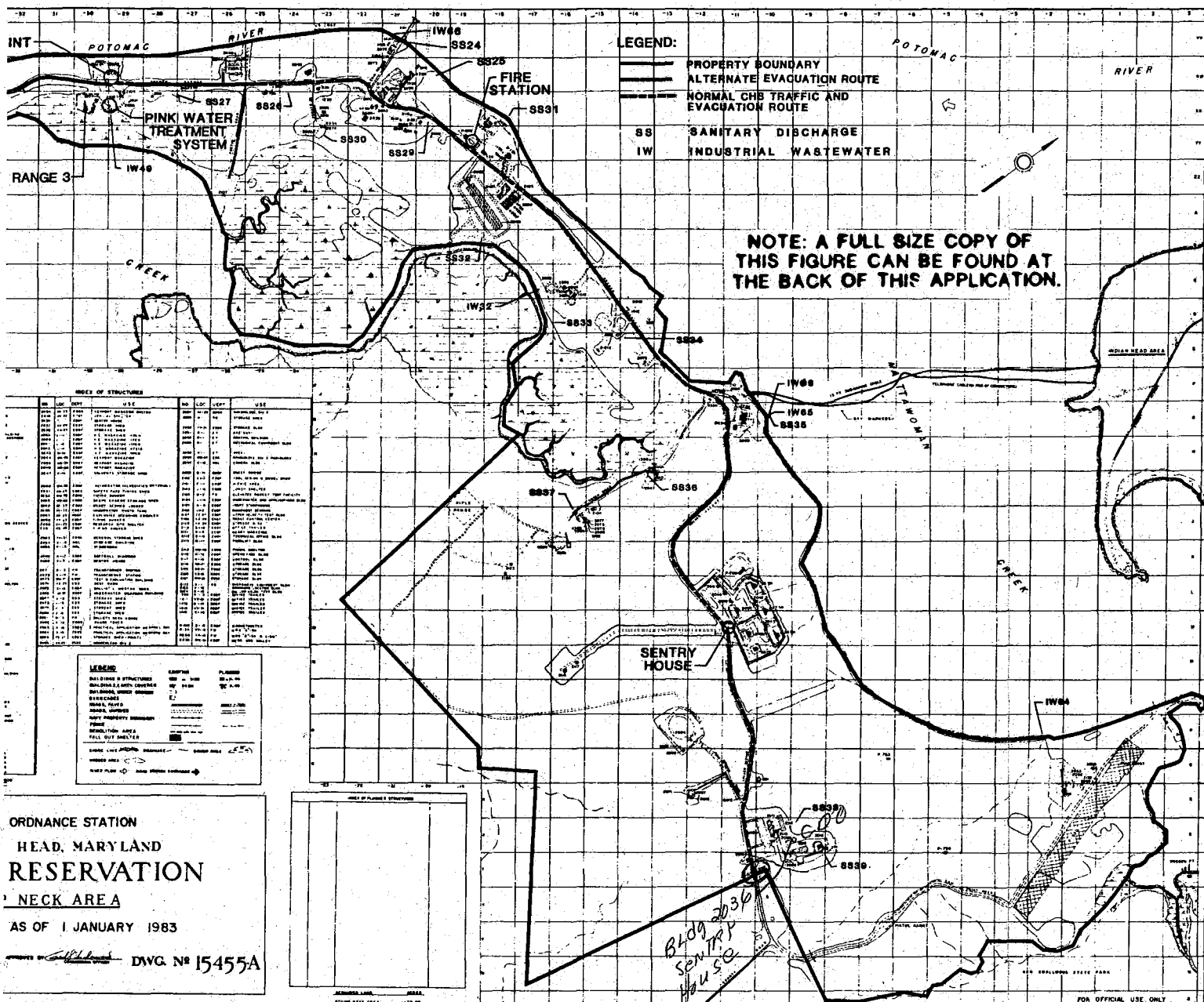
I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME (print or type) R. L. Masten Commanding Officer	B. SIGNATURE 	C. DATE SIGNED 9/30/85
--	--	----------------------------------

The facility drawing (Drawing #15455A) can be found in the plastic insert sheet at the back of this application.

Photographs of the facility are provided as Figures D-1 and D-2.

A topographic map which includes those areas within a 1 mile radius is presented as Figure B-2.



B — Facility Description

Section: B
Revision: 0
Date: 30 July 1985

SECTION B

FACILITY DESCRIPTION

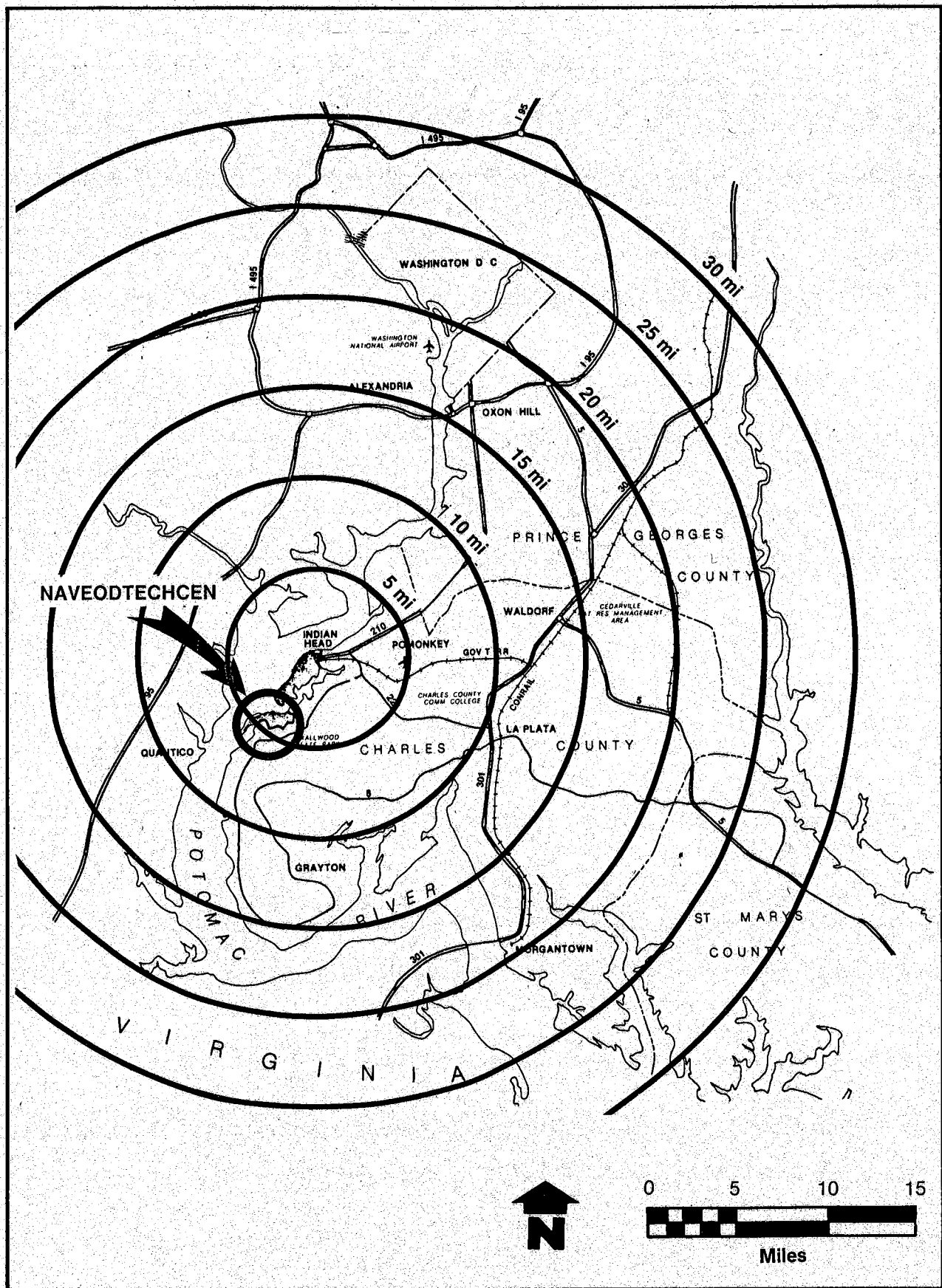
B-1 General Description

The Naval Explosive Ordnance Disposal Technology Center (NAVEODTEHCEN), is located at Indian Head, Maryland, in the west-central portion of Charles County, approximately 25 miles south of Washington, DC. NAVEODTEHCEN is a tenant command on property owned by the Naval Ordnance Station (NAVORDSTA). This activity occupies approximately 1,100 acres of the NAVORDSTA Reservation and is situated on a peninsula (known as Stump Neck) adjacent to the Potomac River, Mattawoman Creek, and Chicamuxen Creek. This peninsula and the property boundary for the land utilized by NAVEODTEHCEN are discontinuous from the main NAVORDSTA reservation.

Figure B-1 presents the geographic site location. Figure B-2 (USGS quadrangle, Indian Head, Maryland) provides an overview of NAVEODTEHCEN including those areas encompassed by a 1-mile radius. Drawing No. 15455A (found in the back of the Part A) is a detailed "Map of Reservation" (showing property lines, gates, fencing, etc.).

NAVEODTEHCEN's mission is to conduct research, development, testing and evaluation in technical matters concerning explosive ordnance disposal (EOD), and to render safe procedures for conventional and special weapons, guided missiles, biological and chemical munitions, tools, equipment, and techniques, both United States and foreign, as required to discharge the Navy's responsibility to the Department of Defense and to the Departments of the Army and Air Force, and other agencies, in the matters relating to EOD.

Past and present site operations at NAVEODTEHCEN utilize materials and generate wastes that are regulated as controlled hazardous substances (CHS). Controlled hazardous substances will be generated, accumulated, and treated at NAVEODTEHCEN. This document addresses the pink water tank and treatment system, which are the only facilities located at NAVEODTEHCEN that have been designated for and require interim status.



**FIGURE B-1 GEOGRAPHIC LOCATION MAP
NAVEODTEHCEN, INDIAN HEAD, MARYLAND**

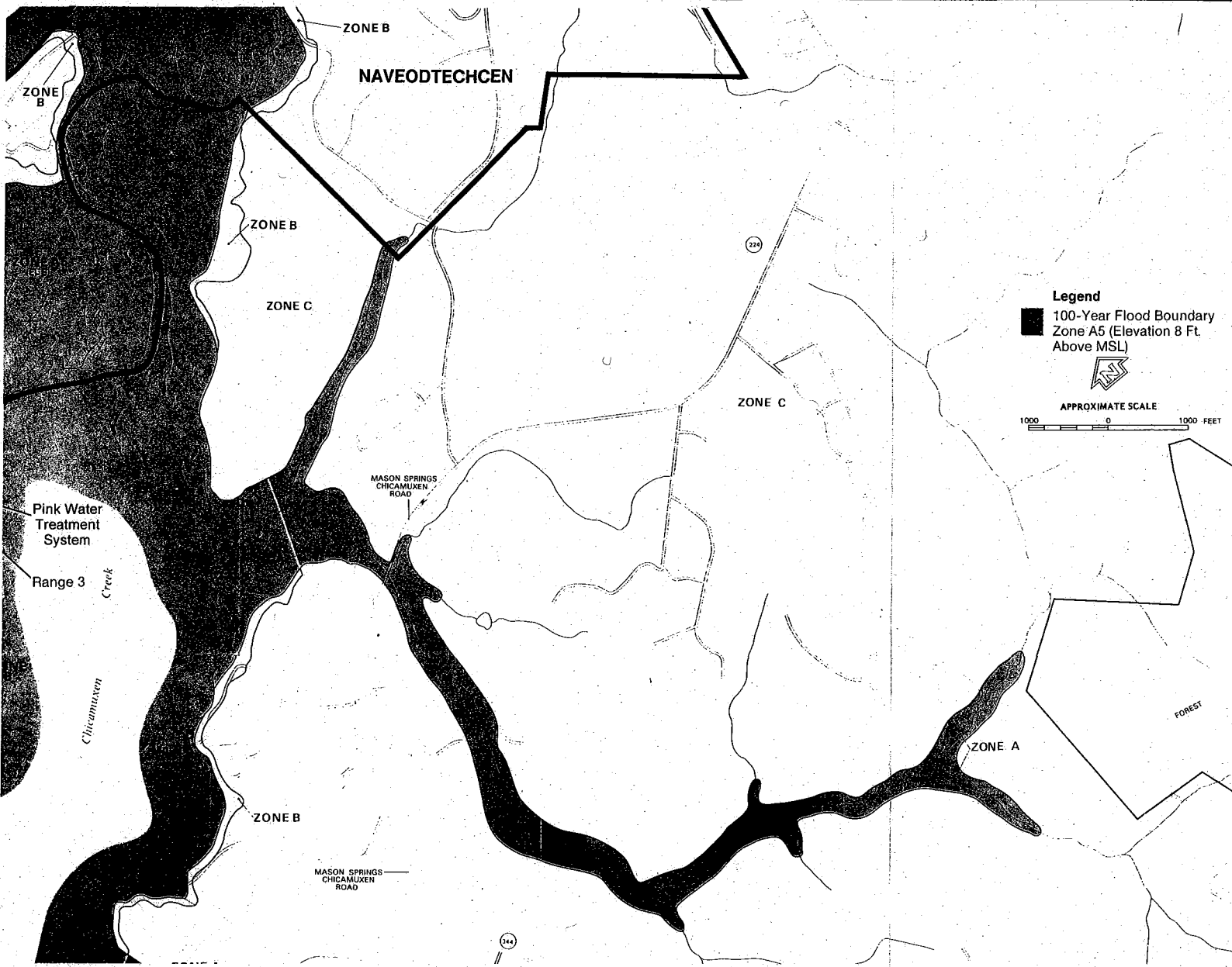


FIGURE B-3 LOCATION OF 100-YEAR FLOOD PL/ NAVEODTEHCEN, INDIAN HEAD, MARYLAND

Section: B
Revision: 0
Date: 30 July 1985

For this reason a brief discussion of the wastes managed in these units is included in Section C, Waste Characteristics. Figure B-3 shows the location of the controlled hazardous substances management units regulated by the State of Maryland and limits of the 100-year flood plain at NAVEODTEHCEN.

The chain-of-command/organizational chart for NAVEODTEHCEN is shown in Figure B-4.

The existing groundwater wells at the facility as well as those within a one-half mile radius of NAVEODTEHCEN are shown on Drawing No. 15455A.

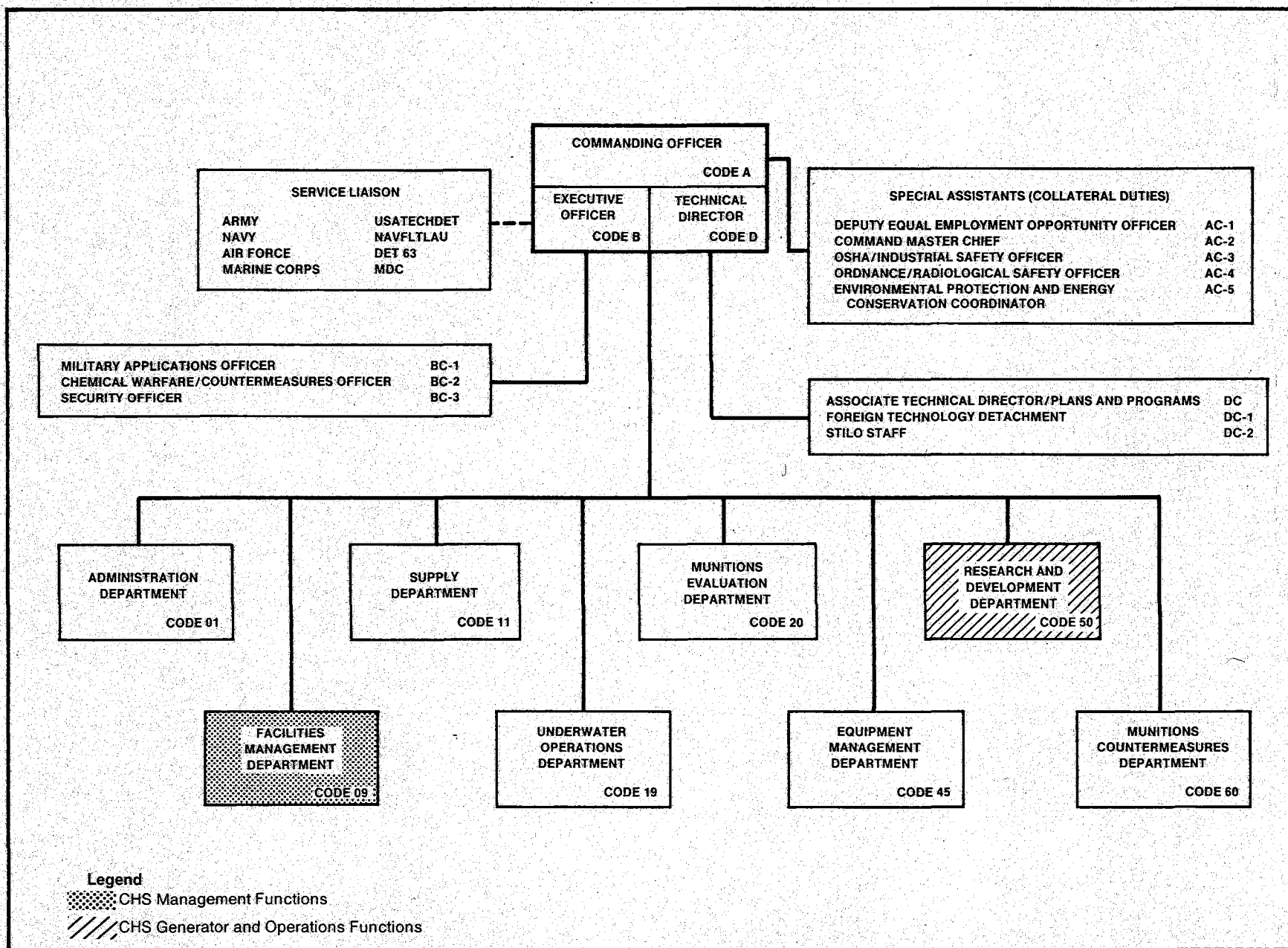
B-2 Topographic Maps and Appurtenant Information

Figure B-3 illustrates the location of the CHS management units in relation to the 100-year flood plain. A plan (scale: 1 inch = 100 feet), showing the topographic and planimetric features within a 1,000-foot radius of the CHS management area is provided in Section D, Figure D-3. Existing surrounding land uses and population statistics are shown in Figure B-5.

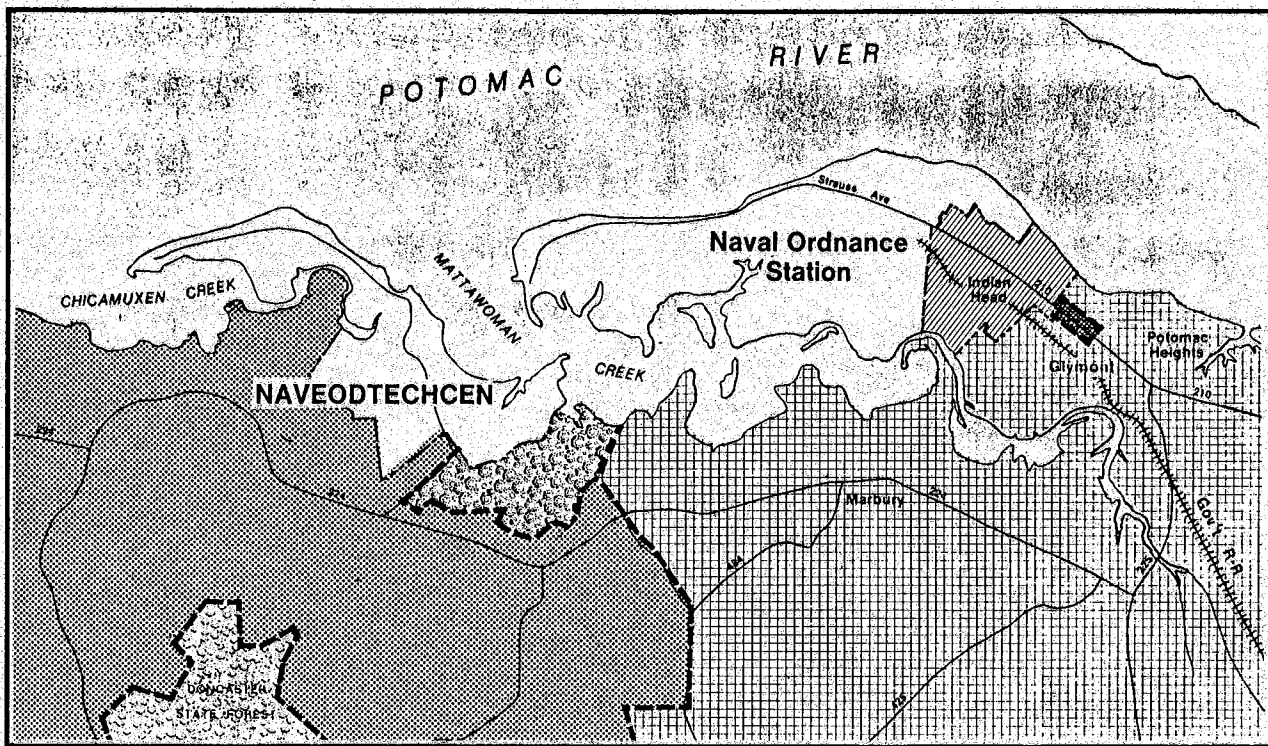
The wind rose for NAVEODTEHCEN is presented in Figure B-6. The winds of greatest velocity are generally from the northwest at 17 to 21 knots. Median wind velocity is indicated as about 5 knots, most frequently from the south or northwest. The wind rose was developed from data collected at the U.S. Marine Corps Base at Quantico, Virginia, which is located approximately 6 miles downstream and across the Potomac River from NAVEODTEHCEN.

Vehicular and personnel access control from contiguous land areas is monitored by Navy personnel at NAVEODTEHCEN via a guarded gate/entrance. Drawing No. 15455A identifies the locations and means of access control at the facility. The legal boundaries of NAVEODTEHCEN are also shown on the drawing. Fencing is not provided along the shorelines of the Potomac River, Mattawoman Creek, and Chicamuxen Creek. Several large warning signs are posted along the banks of these tributaries that forbid trespassing and warn of danger. These signs state, "Danger-Unauthorized Personnel Keep Out," and are legible from a distance of at least 25 feet.

Page B-5 Missing



**FIGURE B-4 NAVEODTECHCEN, INDIAN HEAD, MARYLAND
ORGANIZATION CHART**



- Legend**
- Incorporated Town
 - Commercial Retail
 - Residential Single Family
 - Residential Agriculture
 - Parks and Recreational Areas



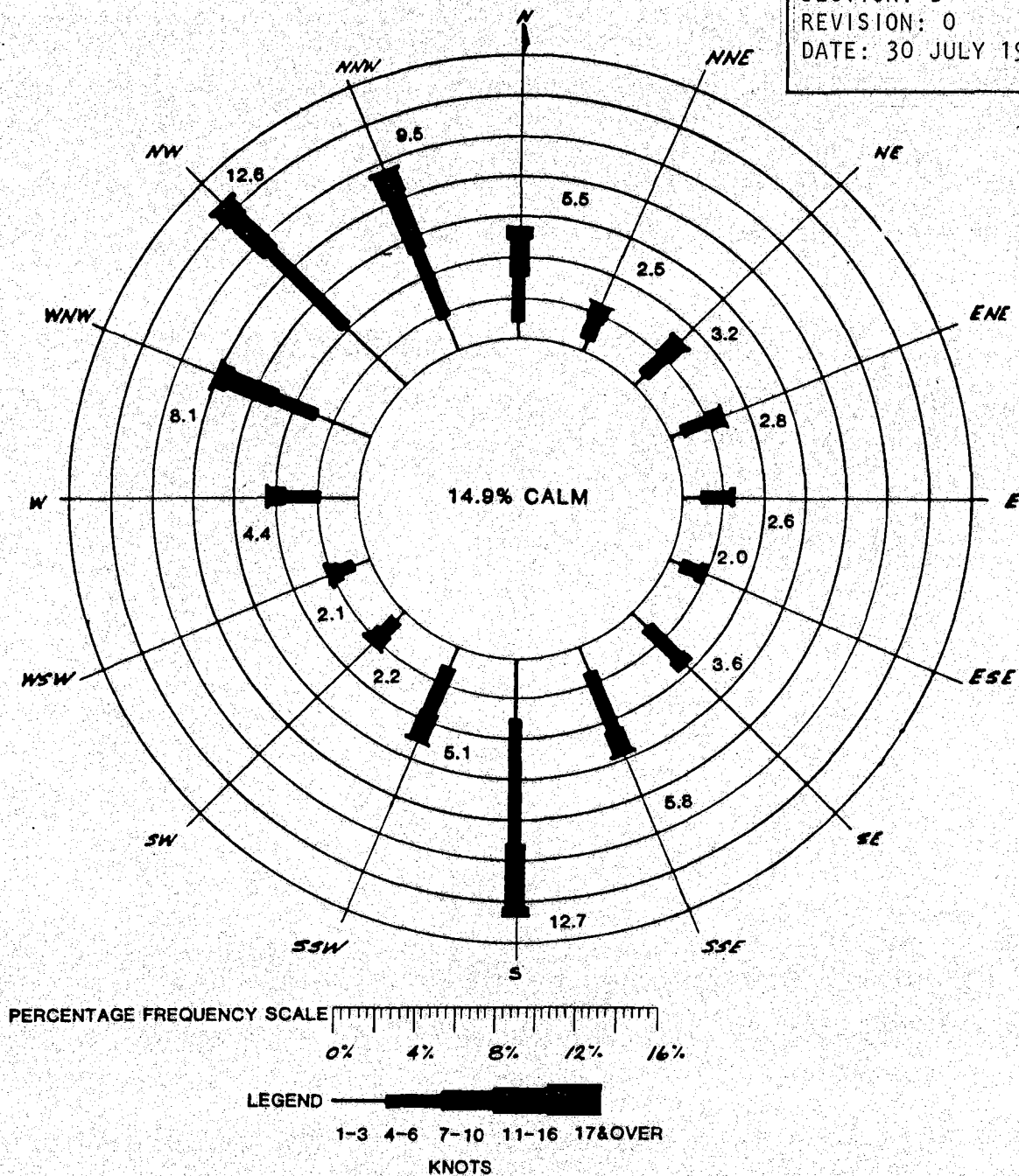
POPULATION CHANGES 1940-1980

	Town Of Indian Head		Pomokee Elect. Dist. 7		Charles County		Maryland State	
	Pop.	% Change	Pop.	% Change	Pop.	% Change	Pop.	% Change
1940	1,140	-----	3,142	-----	17,612	-----	1,672,903	-----
1950	491	-56.9	6,781	115	23,415	32	2,343,000	28.6
1960	780	58.9	9,252	36.8	32,572	39.0	3,100,689	32.3
1970	1,350	73.1	10,687	15.5	47,678	47.3	3,945,981	27.3
1980	1,500	11.1	11,823	10.6	66,840	43.0	4,373,795	10.8
1981	-----	-----	-----	-----	71,525	-----	-----	-----

Note: Population density = 161 people/sq. mi. (U.S. Census Bureau - 1984)

**FIGURE B-5 SURROUNDING LAND USES AND POPULATION
NAVEODTECHCEN, INDIAN HEAD, MARYLAND**

SECTION: B
REVISION: 0
DATE: 30 JULY 1985



(A) Obtained from Naval Weather Service Detachment, Asheville, N.C. for Quantico, VA. Station. Distance to NAVEODTECHCEN: 6 Miles.
(B) Period: 1969-71, 1973-78. based on 20811 Observations.

FIGURE B-6 WIND ROSE

Section: B
Revision: 0
Date: 30 July 1985

B-3 Location/Information

B-3a Environmental Information

The local geology is typical of the low-lying Coastal Plain region. Soils are unconsolidated sediments varying in classification from clays to sands. Interbedded coarser-grained materials generally overlie extensive layers of fine-grained clay. In some areas a hard dense fragipan layer exists in the subsoil, which restricts the downward movement of water.

Potable water wells are located in the Magothy Aquifer, Patuxent, Raritan, and Patapsco Formations that underlie the region at depths of about 200 to 600 feet. Moisture from the shallow water-bearing zone, which is present in the surficial deposits, is expected to move laterally downgradient toward nearby sea-level surface waters, namely, the Potomac River, Chicamuxen Creek, and Mattawoman Creek. There are no known production wells located in the shallow water zone.

B-3b Flood Plain Standard

B-3b(1) Flood Plain

The Potomac River and its tributaries (including Mattawoman and Chicamuxen Creeks) in the vicinity of NAVEODTECHCEN are characterized as an estuary, subject to tidal action/saltwater intrusion. The mean river level for the Potomac is approximately 0.5 foot above mean sea level (MSL), with mean high water at about 1.5 feet above MSL, and mean low water at about 0.5 foot below MSL. MSL is essentially equivalent to the National Geodetic Vertical Datum (NGVD). Some areas of the facility are located within the flood plain (see Figure B-3). The contours of the 100-year flood plain have been calculated by the Federal Emergency Management Agency (FEMA) in the NAVEODTECHCEN area. The flood insurance map for Charles County, Maryland, dated 5 June 1985, shows a Zone A6, 100-year flood elevation, at an elevation of approximately 8 feet above MSL, as illustrated in Figure B-3. The extent of the flood plain has also been shown in the figures in Section D at approximately 8 feet above MSL.

The pink water tank and treatment areas are located within the 100-year flood plain.

Section: B
Revision: 0
Date: 30 July 1985

B-3b(2) Flood Plain Waiver

The accumulation (pink water) tank and carbon column treatment areas are located on a gravel road to the east of Jager Road, and south of Archer Avenue. The operation consists of the generation and treatment of pink water. The treatment of the pink water in carbon adsorption columns is a batch process conducted on an intermittent basis, and CHS are removed from the tank soon after they are generated. Because of the periodic nature of these operations, the operations can be scheduled to avoid potential flooding conditions.

It is proposed that an "inner" stainless steel accumulation tank be retrofitted inside the existing open-top concrete tank to provide for secondary containment and transferability functions.

If there is CHS in the system at a time flood conditions have been predicted, the inner stainless steel tank and carbon columns can be moved to an area above the predicted flood elevation. If the carbon column system is in operation, the operation will be terminated, the process allowed to go to completion in the columns, and the pipes decontaminated. The piping will be decontaminated by running clean water through the piping into the columns. The inner accumulation tank and carbon unit will then be moved using a crane that is available at NAVORDSTA. The portable carbon columns and the inner tank will be relocated to an area above the predicted flood elevation. This entire procedure will require approximately 4 hours, which will be adequate to avoid exposure of CHS to flood conditions.

A waiver relative to the flood plain standards is requested due to the mobile nature of the inner tank and carbon columns and the availability of the equipment necessary to transport these units out of the flood plain in the event of a flood warning.

The plan of operation in response to flood conditions at NAVEODTECHCEN will include the following:

1. Flood Warning

- a. A flood warning will be received by teletype at the Naval Ordnance Station Communications Center, Building 20 (telephone 743-4144/4543) and forwarded to the NAVEODTECHCEN. Such a warning is likely to come from

Section: B
Revision: 0
Date: 30 July 1985

the Naval Polar Oceanographic Center, Suitland, Maryland (telephone 763-1111). Other alternate forecasts are available from the National Weather Service. The forecasts will generally include a prediction of the flood elevation and the approximate time flooding will occur.

- b. During duty hours, the NAVORDSTA Communications Center will call the NAVEODTEHCEN Emergency Coordinator to relay the flood warning message. Routine forecasts are distributed through the Station's Mail and File Branch, with daily delivery at the Emergency Coordinator's office.
- c. After duty hours the NAVORDSTA Communications Center will inform the NAVEODTEHCEN Command Duty Officer (CDO). The CDO will notify the Executive Officer (XO) and the EC.
- d. The EC (or the alternate EC) will review the forecasted flood/high tide predictions to determine if flood control actions are required to protect the CHS management area. If action is required, the EC will consult with the XO and will inform the Public Works Officer or Assistant Public Works Officer at NAVORDSTA, to proceed with the action outlined in the paragraphs that follow.

2. Response Operations

- a. Concept of operations: The CHS accumulation tank and carbon treatment units will be removed from the area to prevent contact with floodwaters. The EC will direct the Public Works Officer to inspect the area. The EC will then assess the situation, including equipment needs, and supervise the relocation of the CHS units to the elevated area near the magazine Buildings 2024, 2025, and 2026.
- b. Removal operations: A working party, consisting of the necessary operating and supervisory personnel from the Public Works Department, will be assembled at the area. The working party will use a crane and the necessary equipment to move the units to the designated area.

Section: B
Revision: 0
Date: 30 July 1985

- c. Replacement operations: After the flood situation has passed, the CHS management units will be returned to their designated locations.

B-4 Traffic Information

Internal traffic circulation associated with the transport of CHS is depicted in Drawing 15455A. The maximum legal gross weight for vehicles entering NAVEODTEHCEN is 79,800 pounds. The internal roadway system has been designed and constructed to comply with Maryland specifications and to be structurally acceptable for supporting the weight of such vehicles (which includes the vehicles transporting CHS). The speed limit at NAVEODTEHCEN is less than or equal to 25 mph.

Intersections where CHS is transported provide clear visibility and adequate vehicle turning distances. Minimal steep roadway slopes exist, and the road widths range up to 20 feet. Access to and from the CHS management area is adequate for the minimal traffic (estimated at less than 1 trip per month) involving movement of CHS. There are no measurable impacts on surrounding road networks due to CHS transport from NAVEODTEHCEN.

Traffic control devices consist of signs (yield signs, stop signs, etc.) that control traffic throughout the facility.

C — Waste Characteristics

Section: C
Revision: 0
Date: 30 July 1985

SECTION C

WASTE CHARACTERISTICS

This section describes the chemical and physical nature of the CHS managed at NAVEODTECHCEN. It also includes the Waste Analysis Plan for sampling, testing, and evaluating the CHS to ensure that sufficient information is available for their safe handling. The information submitted is in accordance with the requirements of COMAR 10.51.07.02A(4)(f) and (g), and 10.51.05.02D. The 1984 annual report is included in Appendix C.1. The 1981, 1982, and 1983 reports are included in the annual reports for NAVORDSTA, which are part of the NAVORDSTA CHS permit application.

C-1 Chemical and Physical Analysis

NAVEODTECHCEN's mission is to conduct research, development, testing, and evaluation in technical matters concerning explosive ordnance disposal (EOD). The facility's mission includes developing procedures to render safe conventional and special weapons including guided missiles, and biological and chemical munitions, and to develop tools, equipment, and techniques for both United States and foreign weapons. As a result of its mission, NAVEODTECHCEN manages pink water, a listed CHS. This CHS is batch treated in carbon adsorption columns.

The pink water results from the demilitarization of munitions by steam washout. The chemical and physical characteristics fluctuate depending on the type of device cleaned and the amount of steam used. Pink water is not ignitable or reactive.

The filter fabrics which are placed in the open concrete flow channel are considered hazardous due to the intimate contact of the filtering media with the pink water.

The carbon from the carbon adsorption columns will also be considered hazardous since it will adsorb contaminants from the pink water.

C-1a Containerized Wastes

The only containerized waste at NAVEODTECHCEN is the pink water in the accumulation tank which is part of the treatment system. Spent carbon canisters are placed in drums prior to off-site transportation and disposal.

Section: C
Revision: 0
Date: 30 July 1985

C-1b Waste in Tanks

The maximum specific gravity for the pink water in the accumulation tank is typically about 0.99.

C-2 Waste Analysis Plan

In accordance with the requirements of COMAR 10.51.05.02D, this section comprises the Waste Analysis Plan for NAVEODTECHCEN. The purpose of this plan is to document sampling methodologies, analytical techniques, and overall procedures for the analysis of CHS.

C-2a Parameters and Rationale

NAVEODTECHCEN has a Hazardous Materials Safety Program (Appendix F.1) that describes the procedures for labeling and packaging containers of CHS. In the event an unidentified or unlabeled material is encountered, the Waste Analysis Plan will be implemented.

Pink water, contaminated filter materials, and the resulting spent carbon are the only CHS at NAVEODTECHCEN. The following Waste Analysis Plan will be used to verify the substance as pink water. The analysis procedure is given in Appendix C.2, and will be performed at closure and when otherwise required. Known sources of the CHS collected in the tank will be considered and will not normally be tested. The spent carbon will be considered hazardous because it will adsorb the CHS constituents of the pink water. Only tests that may be required for off-site treatment/disposal facilities will be performed on the spent carbon.

C-2b Test Methods

Table C-1 lists the methods which will be used to determine whether hazardous constituents are present in the pink water.

C-2c Sampling Methods

Sampling will be conducted by experienced Navy personnel in accordance with COMAR 10.51.05.02D(2)(a)(iii). Contents of tank will be sampled using a Teflon or stainless steel bailer or Coliwasa, if layering exists.

Section: C
Revision: 0
Date: 30 July 1985

Table C-1

Typical Parameters, Rationale, and Methods
for Determination of Pink Water Waste

Controlled Hazardous Substance	Parameter	Rationale	Method
Pink water	Color	Indicates presence of TNT	Visual
	TNT	Indicator parameter for this reactive waste	USATHAMA 8G (HPLC)

Section: C
Revision: 0
Date: 30 July 1985

C-2d Frequency of Analysis

The pink water contained within the tank will be sampled only if the contents are suspected of being nonhazardous and might be disposed as a noncontrolled hazardous substance. Otherwise, the contents will be assumed to contain CHS. The effluent from the carbon columns will be sampled every month during the first year of operation. The sample schedule will subsequently be adjusted as appropriate, based on cumulative results to that time.

C-2e Requirements for CHS Generated Off-Site

NAVEODTECHCEN does not currently receive CHS from off-site sources. Additionally, it is not anticipated that management of CHS from off-site sources will be conducted in the future.

C-2f Additional Requirements for Ignitable, Reactive, or Incompatible Wastes

NAVEODTECHCEN treats only a limited number of reactive CHS. There are no other types of CHS managed at the facility and consequently, there are no incompatible CHS at this facility. Pink water is not ignitable or reactive.

C-3 Quality Assurance

NAVEODTECHCEN presently uses a commercial laboratory under contract to Chesapeake Division, Naval Facilities Engineering Command (CHESNAVFACENGCOM) or the NAVORDSTA laboratory facilities (see NAVORDSTA permit application, Section C) for the analyses required by this plan. The laboratory contractor is required to submit a written quality assurance plan for review and approval by CHESNAVFACENGCOM. The quality assurance plan submitted by the current contractor is presented in Appendix C.3. Similar quality assurance plans will be required from subsequent CHESNAVFACENGCOM laboratory contractors.

Section: C
Revision: 0
Date: 30 July 1985

APPENDIX C.1
ANNUAL REPORTS

Note: The 1981, 1982, and 1983 annual reports are included in the NAVORDSTA annual reports, which can be found in the NAVORDSTA CHS permit application. The 1984 annual report for NAVEODTEHCEN follows herein.

FACILITY ANNUAL HAZARDOUS WASTE REPORT

This report is for the calendar year ending December 31, 1984

AFFIX LABEL HERE

Please print/type with elite type (12 characters per inch)

GENERAL INSTRUCTIONS: If you received a preprinted label attached to the mailing envelope in which this form was enclosed, affix it in the space provided. If any of the information on the label is incorrect, draw a line through it and provide the correct information in the appropriate section below. If the information is correct and complete, leave Sections I, II, and III below blank. If you did not receive a preprinted label, complete all sections. REFER TO THE SPECIFIC INSTRUCTIONS CONTAINED IN THIS BOOKLET BEFORE COMPLETING THIS FORM. The information requested in this report is required by law (Section 3004 of the Resource Conservation Recovery Act).

I. FACILITY EPA I.D. NUMBER

T A C
F M D 4 1 7 0 0 9 0 0 1 1 1
1 2 13 14 15

II. NAME OF FACILITY

N A V E X P O S T E C H C E N T R *
30 69

*Naval Explosive Ordnance Disposal Technology Center

III. FACILITY MAILING ADDRESS

R O U T E 1 2 1 0
15 16 45

Street or P.O. Box

I N D I A N I H E A D M I D 2 0 6 4 0
15 16 41 42 47 51
City or Town State Zip Code

IV. LOCATION OF FACILITY (if different than section III above)

5
15 16 45

Street or Route number

6
15 16 41 42 47 51
City or Town State Zip Code

V. FACILITY CONTACT

F R A U E N F E L D E R H A R R Y
15 16 45

Name (last and first)

VI. COST ESTIMATES FOR FACILITIES

3 0 1 - 7 4 3 - 4 6 3 1
46 55

Phone No. (area code & no.)

\$ 5 0 0 0 \$
16 19 22 23 28 31

Cost Estimate for Facility Closure

Cost Estimate for Post Closure Monitoring and Maintenance (disposal facilities only)

VII. CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Mr. H. J. FRAUENFELDER, HD, FACILITIES MANAGEMENT DEPARTMENT 3-11-85
Print/Type Name Title Signature of Authorized Representative Date Signed

MARYLAND OFFICE OF ENVIRONMENTAL PROGRAMS
Facility Annual Hazardous Waste Report (cont.)

This report is for the calendar year ending December 31, 1984

VIII. FACILITY'S EPA I.D. NO.

F M D 4 1 7 0 0 9 0 0 1 1 1 1
1 2 13 14 15

Date received: _____

Received by: _____

IX. GENERATOR'S EPA I.D. NO.

G M D 4 1 7 0 0 9 0 0 1
16 28

X. GENERATOR NAME (specify generator from which all wastes on this page were received)

XI. GENERATOR ADDRESS

Naval Explosive Ordnance Disposal Technology Center (NAVEODTECHCEN) Indian Head,
 MD 20640

XII. WASTE IDENTIFICATION

Sequence #	Line #	A. Description of Waste	B. EPA Hazardous Waste No. (see instructions)	C. Handling Method	D. Amount of Waste	Unit of Measure
29	32	1 Ordnance Waste and Ordnance-Contaminated Waste	D 0 0 3 33 36 37 40 41 44 45 48 49 51 52	T 1 8	** 5.4 1.0	P
	1					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					

XIII. COMMENTS (enter information by section number—see instructions)

**Treated by open burning.

Section: C
Revision: 0
Date: 30 July 1985

APPENDIX C.2

PINK WATER VERIFICATION

Section: C
Revision: 0
Date: 30 July 1985

APPENDIX C.2

PINK WATER VERIFICATION

WATER SAMPLE ANALYSIS FOR TNT

Procedure

1. Briefly agitate sample with a magnetic stirrer and decant approximately 3 ml from the sample jar through a syringe fitted with a prefilter cartridge.
2. Perform the analysis on a liquid chromatograph utilizing ultraviolet detection.

LC Conditions:

Mobile phase: 85 percent acetonitrile; UV grade
15 percent H₂O
Isocratic elution

Flow: 1.0 ml/minute

Column: 15 cm ODS; 5 um packing.

UV wavelength: 254 nm

Note: It is recommended that any samples be analyzed as soon as possible after sampling and be protected from direct sunlight or other light sources with opaque sampling vessels or other means.

References

1. Burlinson, N., M. Sitzmann, D. Glower, and L. Kaplan, "Photochemistry of TNT and Related Nitroaromatics: Part III," NSWC/WOL TR 78-198, 1978.
2. Burlinson, N., L. Kaplan, and C. Adams, "Photochemistry of TNT: Investigation of the 'Pink Water' Problem," NOLTR 73-172, 1973.

Section: C
Revision: 0
Date: 30 July 1985

APPENDIX C.3
QUALITY ASSURANCE PLAN

JTC ENVIRONMENTAL CONSULTANTS, INC.

QUALITY ASSURANCE PROGRAM

SUBMITTED TO:

NAVAL FACILITIES ENGINEERING COMMAND
CHESAPEAKE DIVISION
WASHINGTON NAVY YARD, BUILDING 212
WASHINGTON, D.C. 20374

PREPARED BY:

JTC ENVIRONMENTAL CONSULTANTS, INC.
4 RESEARCH PLACE
ROCKVILLE, MARYLAND 20850

NOVEMBER 27, 1984

Baseline Laboratory Assurance

The baseline laboratory assurance program outlines and sets up the procedures that assure equipment, and other apparatus; standards, solvents, reagents and gases; and glassware and other containers to be handled, organized, operated and maintained properly and that they meet stringent requirements. In addition, it details the steps to assure that personnel are specifically trained on particular analytical methods prior to their being given responsibility. Equipment and major items or apparatus in the JTC laboratory are grouped according to analytical use. Each group has a major responsible person and one or more "use logs" that are currently maintained and contain such information as: operator, analysis/mode, project, date, duration, and comments. This latter category includes descriptions of problems, solutions and/or maintenance of the equipment. In addition, a file is kept of all manufacturers information for quick access when needed. For example, any person using or in any way handling the atomic absorption spectrophotometer must record in a separate bound notebook, the date, name, time in, time out, lamp (element), mode (flame, carbon rod, or cold vapor), and a description of any problems, if encountered, that is whether operation was satisfactory or for what purpose the instrument was handled (i.e., manufacturer's rep. check out, changing instrument gases, etc.). All other instruments have similar logs maintained. In addition, each equipment grouping has a Q/A check sheet outlining required maintenance and Q/A check schedules that are planned in accordance with manufacturers recommended procedures or established laboratory practice. Completion of the required action is signed off and reviewed. For example, among the things routinely monitored are: distilled water conductivity (daily); refrigerator, incubator, freezer, and oven temperatures (daily); distilled water apparatus clean-out (monthly); etc.

Standard, solvent, reagent and gas quality are critical to the performance of exacting analytical methods. In that regard, only ACS standard reagent grade or better materials are utilized for any analysis. These materials are inventoried, clearly labeled (reference to notebook descriptions) and samples retained (in appropriate containers) until Q/A checks on pertinent analyses pass on the material. Only the lab manager or assistant has authority to discard such materials. For most analyses the distilled water utilized is tap water that has been filtered, passed through carbon and ion exchange resins and then distilled. For certain trace organic analyses water and organic solvents require further assurance of hydrocarbon-free conditions. These such solvents are specially distilled and stored (complete descriptions of the methodology and materials used are recorded and ably referenced). A

complete record of standards, reagents, solvents and gases (Standards and Reagents Notebooks) is maintained and contains:

1. Description of standard material; chemical name and formula composition, analytical grade, manufacturer and/or supplier, lot number, expiration data.
2. Specifics of standard preparation; mass of standard material, preparation of standard material, dilution of standard material, solvent preparation or purity.
3. Demonstration of calculation of standard concentration.
4. Steps taken to preserve standard.
5. Date of preparation.
6. Signature of analytical chemist.

Glassware and other basic laboratory apparatus must be scrupulously clean. However, cleaning and rinsing procedures vary with analysis, i.e., nitric acid washed glass and plastic ware is utilized for metals analyses, sulfuric acid wash and extensive rinsing is utilized for trace organic analyses, while chromic acid washed ware is utilized for most nutrient, demand and other general analyses. Of importance here, is the implementation of the proper procedures and the physical separation of glassware (or other apparatus) cleaned by different procedures. This is attained by providing separate storage areas (for both clean and dirty) that are unmistakably labeled as to contents.

All analytical personnel are trained and tested in each particular analytical method they are to handle before they are allowed to analyze contract materials. Acceptable levels of precision and accuracy must be attained (See discussions on analytical assurance below).

Sample Handling Assurance

Proper sample handling and accounting, both in the field and in the lab, is extremely important to the attainment and assurance of reliable analytical information (JTC's sampling methodology, tagging and sealing procedures are not discussed here). The sample chain of custody must be clearly documented. In that regard, JTC maintains a separate sample receiving and storage area. Upon receipt of a sample or samples it is acknowledged by providing a completed receipt form to transmitter of the sample(s). It itemizes and notes origination site, transmittal authority, how stored or handled, and describes the material received. It is signed by the lab manager. A copy is retained for JTC lab records. After formal receipt of the material, it is tagged and numbered and properly stored (according to prior or transmittal instructions). The material description and project requirements are then entered into the sample log according to the tagged number. Also included are project number, date and the lab manager's initials. Any further movement of the material or change in its condition is also entered in the log book. For example, lab use date, purpose, condition change and analyst's name are logged. When the sample is finally either transmitted or discarded (or consumed) this is so logged and initialed by the lab manager. Only the lab manager or assistant is authorized to receive, transmit or discard samples, and then, only at the acceptance of the project manager. Note that all transmittals are accompanied by a transmittal form describing sample name, condition (quantity and state), destination, authorized receiver, purpose and any other pertinent information. Included is a request for the transmittal form to be returned, and initialed by the receiver with receipt conditions stated. This is then compared with JTC's file copy.

Analytical Method Assurance

Perhaps the greatest potential source of data error exists at the assemblage of instruments, apparatus, chemicals, and personnel that constitute the analytical method application. It is for that reason that JTC employs special Q/A monitoring and checking techniques to this situation. There are three aspects to this; method preparation check, initial method test, and continued method challenging.

Prior to analytical determination, standards must be made or obtained, equipment and apparatus assembled and checked, and preliminary methodology applied (i.e., extraction, clean-up, digestion, etc.) All aspects of this must be

carefully recorded and referenced in standards notebooks, equipment use logs, as well as the analytical notebook. All methods to be utilized are fully described or referenced. A listing is provided of all reagents (lot nos.), apparatus and equipment, with a full set-up description, operator signature and data included. Results of equipment checks and preliminary method application is also well documented. Of special note here is the performance evaluation of the GC/MS. Prior to its being used for any analytical work it is first carefully "tuned" and calibrated utilizing perfluorotributylamine (FC43). The calibration data are permanently documented on magnetic tape and on hard copy. Performance of the instrument (GC/MS) would be checked and verified for meeting the specified criteria by analyzing known amounts of standards required by the contractor, i.e., the ability to chromatograph and analyze 20 ng of decafluorotriphenylphosphine and the recorded mass spectrum meeting the criteria as required by EPA. All data assist equipment (i.e., GC/MS computer, disc drives, tape device and printronix hard copies) is checked and proper function documented. Strip charts, acquired during GC, AA or other methods of analysis, will contain operator signature(s), date, equipment and recorder operating parameters, recorder manufacturer's model and serial numbers, and reference to the analytical method.

After method preparation and before contract samples are analyzed the method is tested to insure proper preparation and the applicability of the method to the particular sample matrix. This is performed in three stages. Initially, the detection limit and linear range of compounds are determined with simultaneous analysis of blanks (both field and laboratory when applicable). Blank corrections are determined. The application of the method to the sample matrix is then checked by spiking the sample with standards and analyzing the mixture by the appropriate procedure. This also provides for the determination of the percent recovery of the compound from the sample matrix. The sensitivity and linear range are then determined and compared to results described in the method reference literature. If discrepancies exist, the entire preparation methodology is reviewed for sources of interference, i.e., impurities in reagents, equipment, etc. The second and third aspects of initial method testing involve precision and accuracy determination.

The precision of the method is determined in one of two ways. At four points of the method linear response range representing low, low mid, high mid, and high concentrations, 7 to 9 replicates are run. They are analyzed in the order high, low, intermediate, intermediate, then repeated. The results are reduced using linear regression analysis and the response standard deviation obtained. This value, expressed in measured units, represents the initial

method precision and is incorporated into the method precision statement. Precision may also be determined by analyzing 15 replicates covering the method linear response range of concentrations. The results are tabulated and the initial method "critical difference" is determined (Both precision determination methods are fully described in Quality Assurance Program for the Analysis of Chemical Constituents in Environmental Samples, U.S. EPA, Cincinnati, 1978 and Handbook for Analytical Quality Control in Water and Wastewater Laboratories, U.S. EPA Technology Transfer, 1972).

Initial method accuracy is also determined. Samples both before and after spiking with standards are analyzed as pairs. The concentrations for both plain samples and those spiked cover the method linear response range. Generally, 15 such sample pairs are analyzed. For each pair the percent recovery is determined, then the means and standard deviations of these sample populations are calculated. The standard deviations, in units of percent recovery, are then incorporated into the initial method accuracy statement. Percent recovery standard deviations are listed for both standard and spiked populations.

After the initial method testing has shown the analytical procedures to be in statistical control, contract analyses are begun. It should be noted that all initial testing is thoroughly described and recorded in the analytical notebook for the particular method as in the Q/A master log.

The third aspect of analytical method quality control is that of continuing method challenging. This entails the periodic checking of standard curves and method blanks, the continuous utilization of internal standards (GC or GC/MS), as well as the analysis of both in-house and contractor generated quality assurance (Q/A) samples. It is especially important that method blanks be checked whenever a potential new source of error is introduced into the analytical scheme. Q/A (blind) samples will be of two types; series replicates for precision checks, and series standards and spikes for accuracy checks. Such samples generally represent 15 percent of the analytical load. Replicate differences and standard and spiked percent recoveries will be continuously charted (Q/A charts). Rejection criteria will be whether the calculated control parameter falls outside of the respective control window. For precision, standard accuracy and spiked accuracy, the control windows are represented by the initial method "critical difference", that is, two times the percent recovery standard deviation and three times the percent recovery standard deviation, respectively. Where statistically applicable the control windows will be updated.

If any of the windows are exceeded the source of determinate or indeterminate error will be found and corrected before further contract analyses are performed. Then, all samples analyzed since the last "in control point" will be reanalyzed. The particulars of blind sample frequency and rejection criteria are approved by the contractor project manager for each analysis parameter

Data Handling Assurance

The last link in the information chain is the reported data. It must be reliable and represent the original sample and the analytical method. Therefore, its handling must be monitored and reviewed. This is generally considered in terms of three aspects. The first is laboratory record keeping. Laboratory notebooks are continuously maintained with complete information as previously outlined. In addition, a sequential list of all measurements actually observed or made is recorded. This would include peak heights, meter deflections, digital display values, etc. For the GC/MS system, data regarding all instrument function and acquired during sample analysis are copied in 9-track magnetic tape, stored and referenced in the appropriate log book. The identity of each measurement is listed, according to sample number, and indicated whether sample, calibration standard or reference, method or field blank. Sample size and any other information which may be required for calculation is also recorded. Strip chart, computer printer hard copy and magnetic tape information is carefully labeled and filed. This is referenced in the laboratory notebooks,

Calculations, formulas, and parameter values are contained in separate calculation notebooks. These notebooks also have references to the particular analysis and record the dates of calculation and the calculator's signature. Any printouts, or calculator aids are also attached. Laboratory and calculation notebook pages are continuously prepared in "carbon-copy" duplicate.

After analytical and calculation data is obtained by the laboratory analyst, the duplicate notebook pages are received and reviewed by the laboratory manager. It is reviewed for completeness of information, spot checked for calculation error and the actual measurement data checked for discrepancies. Q/A sample measured values are decoded and the Q/A control charts adjusted accordingly. All strip chart or other instrument information is also reviewed in this procedure. If no problems are found, the lab analyst is given a preliminary Q/A approval for that particular data. If discrepancies are found, the analyst is immediately contacted, the analyses halted and the situation reviewed by the lab manager, the analyst, the project manager and the

research or project director. Final Q/A approval is always subject to agreement by the JTC staff and the contractor. It should be noted that record integrity is maintained. All lab and calculation notebooks, all instrument charts, magnetic tape or print outs, and all lab management review and Q/A logs are maintained in locked files.

The final aspect of data handling assurance is that associated with reporting formats. All data transmittals are in report form with accompanying appendices where needed or desired, i.e., hardcopies, and magnetic tape, etc. The reports contain references to methods utilized, problems encountered, solutions developed, complete updated Q/A control charts and parameter values in appropriate units and significant figures. The GC/MS magnetic tape data is also accessible according to EPA accepted formats.

Sub-Contractor Assurance

Sub-contractor quality assurance is also of importance. Any sub-contractor to JTC is required to submit to a Q/A review and audit and is expected to maintain comparable data assurance procedures. All related sample and data transmittal information is maintained in separate files and periodically reviewed as to audit or analytical challenge needs.

D — Process Information

Section: D
Revision: 0
Date: 30 July 1985

SECTION D

PROCESS INFORMATION

The information provided in this section is submitted in accordance with the requirements of COMAR 10.51.07.02.

This section discusses specific process information for the CHS treatment unit.

NAVEODTECHCEN generates pink water from the demilitarization of munitions. The pink water contains trinitrotoluene (TNT), dinitrotoluene (DNT), and/or hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX). The concentration of these constituents varies depending on the type of device cleaned and the amount of steam used. The pink water is collected in an open-top, rectangular concrete channel flowing by gravity to a below-grade, open-top concrete tank. The existing concrete tank has a capacity of approximately 20,000 gallons. Filter fabric is used in the channel to capture the suspended solids in the washout stream that flows to the accumulation tank. The filter fabric is removed from the channel after each operation and thermally treated via open burning in a tank located on Range 3.

Direct use of the existing open-top concrete tank is planned to be discontinued after a stainless steel tank has been inserted in the existing concrete tank. The concrete tank will then serve as the secondary containment vessel. Two carbon columns in a series configuration will be used to treat the water accumulating in the steel tank.

Figures D-1 and D-2 are photographs of the existing concrete storage tank. Figure D-3 is a photograph of a thermal treatment tank on Range 3. Figure D-4 is a topographic map illustrating significant planimetric and topographic features within a 1,000-foot radius of the pink water tank. Figure D-5 is a facility plan of the proposed storage and carbon treatment systems.

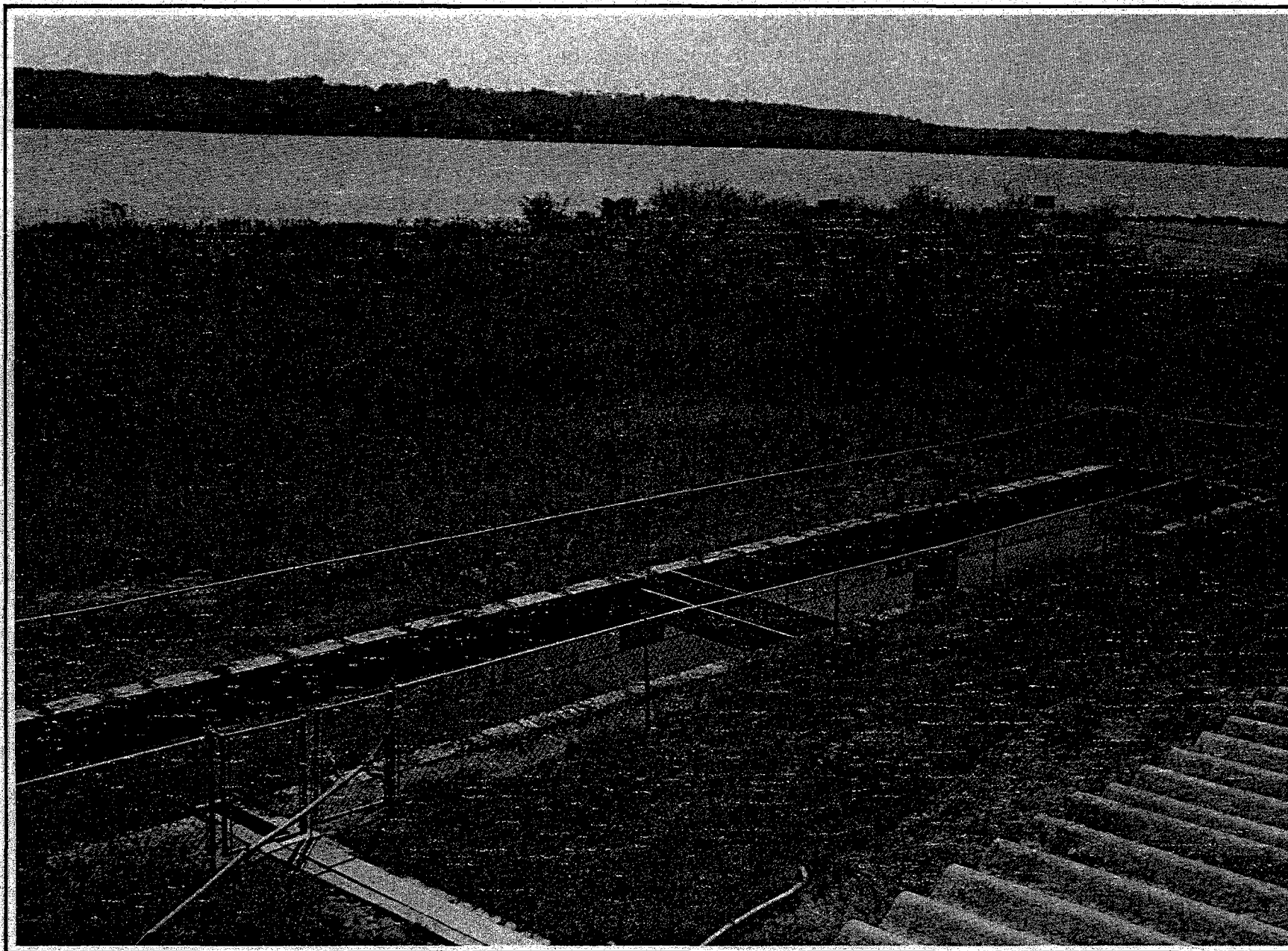


FIGURE D-1 NAVEODTEHCEN PINK WATER TANK

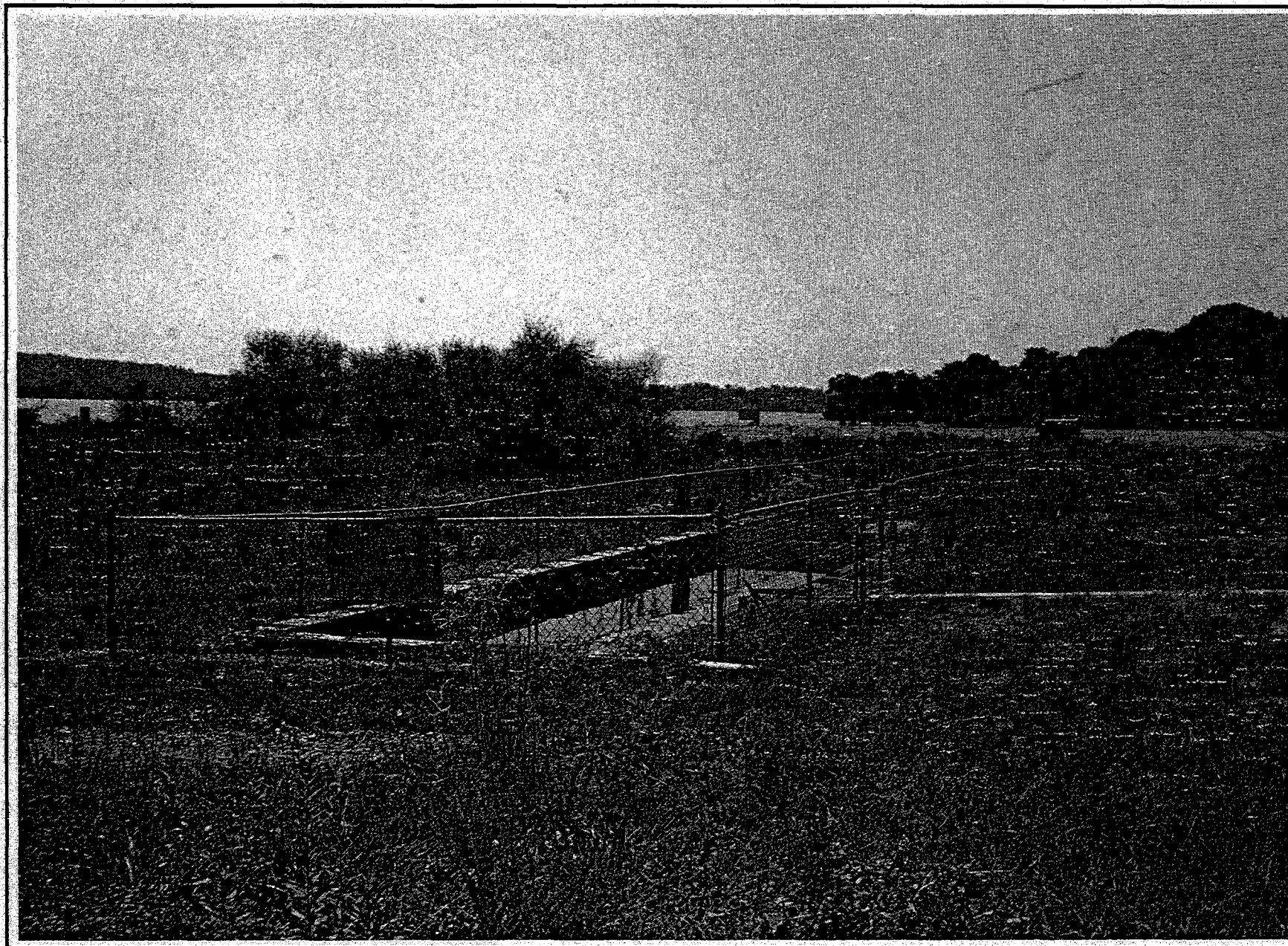


FIGURE D-2 NAVEODTEHCEN PINK WATER TANK

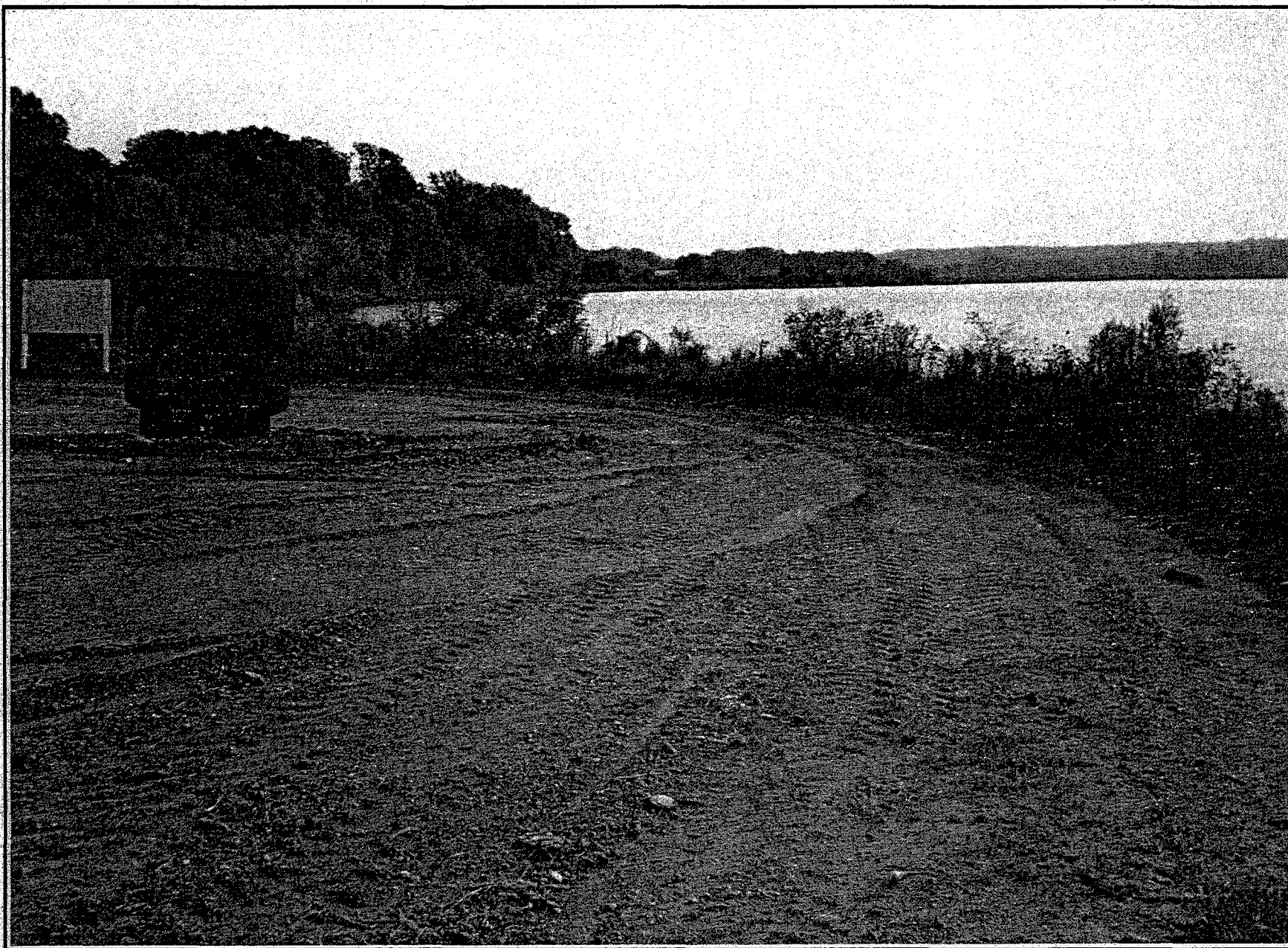
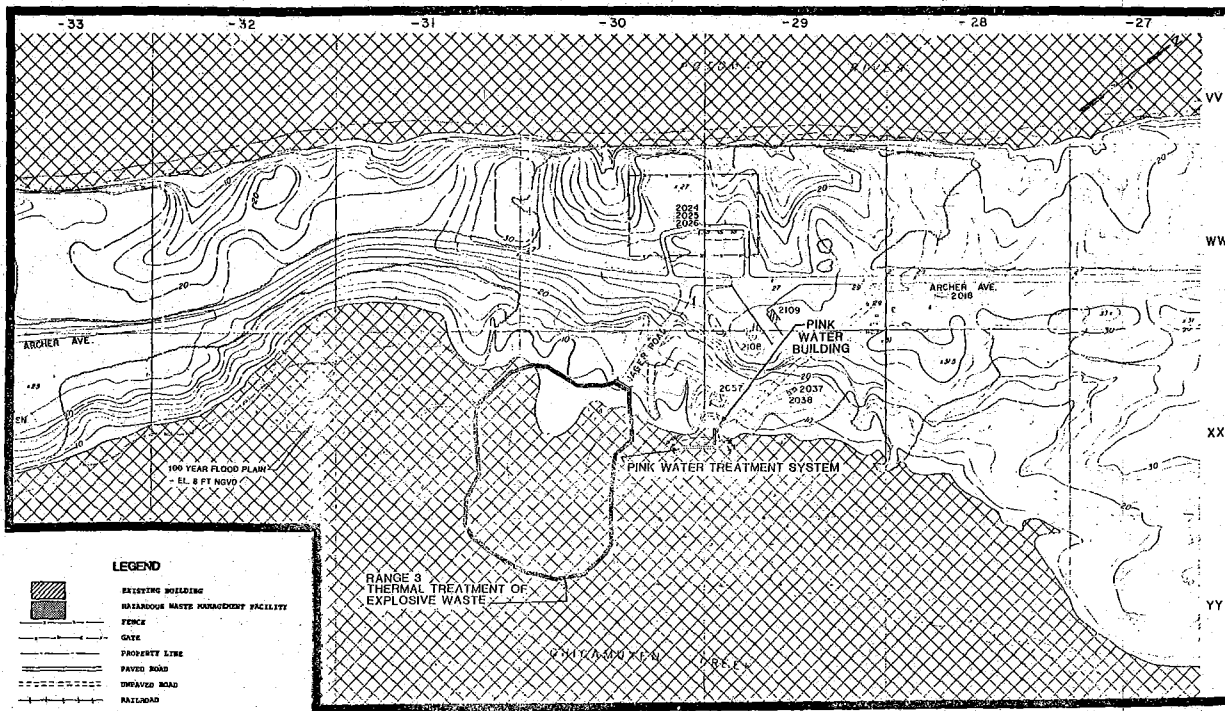


FIGURE D-3 NAVEODTEHCEN RANGE 3

SECTION D
REVISION 0
30 JULY 1985



LEGEND

- EXISTING BUILDING
- HAZARDOUS WASTE MANAGEMENT FACILITY
- FENCE
- GATE
- PROPERTY LINE
- PAVED ROAD
- UNPAVED ROAD
- RAILROAD
- SHORELINE OF SURFACE WATERS
- CONTOURED 100-YEAR FLOODPLAIN AREA
- DRAINAGE WAY
- MOORED AREA
- SWAMPY AREA
- CONTOURS AT AN INTERVAL OF 2-FEET
- PRODUCTION WELL
- MANHOLE
- STORM SEWER INLET
- STORM DRAINAGE SYSTEM
- RIVER WATER MAIN SYSTEM
- FIRE HYDRANTS
- SANITARY SEWER LINES

NOTE: A FULL SIZE COPY OF
THIS FIGURE CAN BE FOUND AT
THE BACK OF THIS APPLICATION.

0 100 200
SCALE IN FEET

FIGURE D-4 PINK WATER TREATMENT TANK & RANGE 3 - THERMAL TREATMENT OF EXPLOSIVE WASTE			
DEPARTMENT OF THE NAVY NAVAL EXPLOSIVE ORDNANCE DISPOSAL TECHNOLOGY CENTER INDIAN HEAD, MD.			
WESTON			
DESIGNED BY	DESIGNED	CONSULTANTS	FORWARDED
L.M.	6/2/85	P.W.	6/10/85
F.J.F.	6/14/85	J.C.P.	6/16/85
			REV.
			O

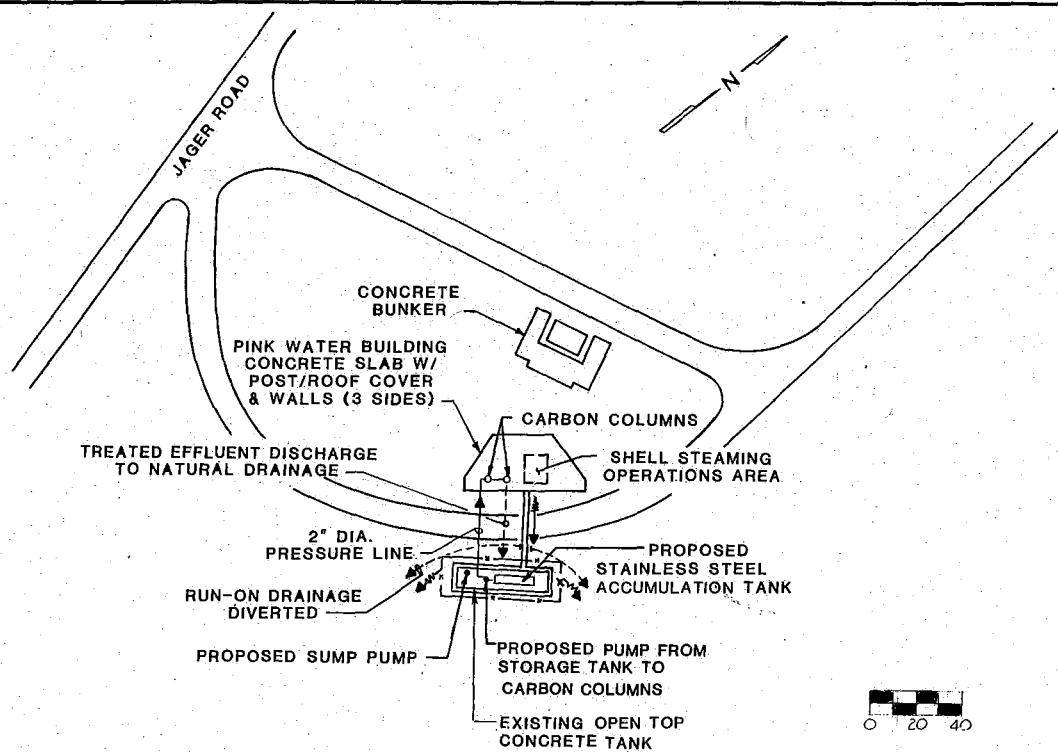


FIGURE D-5
PINK WATER TREATMENT SYSTEM

SCALE: 1"=40'-0"

DEPARTMENT OF THE NAVY
NAVAL EXPLOSIVE ORDNANCE
DISPOSAL TECHNOLOGY CENTER
INDIAN HEAD, MD.

ROY F. WESTON, INC.
WESTON
DESIGNERS CONSULTANTS

DRAWN	P.W.	DATE	DES. ENG.	DATE	W. O. NO.
CHECKED		6/24/80	APPROVED		DWG. NO.

Page D-6 Missing

Section: D
Revision: 0
Date: 30 July 1985

D-1 Controlled Hazardous Substances Accumulation

The washout from the demilitarization of munitions will be channeled to a 1,223.5-gallon stainless steel tank via the existing open concrete channel. Filter fabric of varying weave density, ranging from a loose weave, like burlap, to a tight weave, like filter cloth (sheeting), is placed in the open channel to minimize the amount of solids passing to the accumulation tank. The filter fabric is removed after each operation and thermally treated via open burning in a steel tank located on Range 3, adjacent to the pink water treatment area.

Approximately half of the existing concrete tank will be filled in. The stainless steel tank will be placed in the remaining half. The remaining concrete tank will provide a secondary containment capacity of approximately 10,000 gallons. The interior surface of the concrete tank was recently coated with two coats of Thompson's Water Seal as additional protection in containing leaks, spills, and accumulated precipitation.

A manually-operated sump pump will be placed in the concrete tank to periodically remove precipitation. To eliminate runoff into the concrete tank, a diversion for storm water runoff has been installed. In addition, a moveable channel flow control has been installed in the concrete channel that will empty into the steel tank. This flow control will allow the stormwater entering the channel to be routed around the tank when the steam-cleaning operation is not in use.

The stainless steel accumulation tank to be inserted in the existing concrete tank is 42 inches in diameter and 17 feet in length, has a 1,223.5-gallon capacity, and is rated at 75 psi. The wall thickness of the tank was measured at between two- and three-gauge steel. Lifting eyes will be installed on the tank to make removal, in the event of a flood warning, easily accomplished. A data sheet for the tank is provided as Appendix D.1.

D-2 Controlled Hazardous Substances Treatment

The pink water generated from the demilitarization of munitions will be treated in two columns of granular activated carbon. The columns are 19 inches in diameter, 51 inches in length, and constructed of approximately 13-gauge stainless steel. Pink water from the stainless steel tank will be pumped to the columns by a stainless steel pump at a flow rate of approximately 12 gallons per minute. An Alsop filter consisting of 16 sets of rings, disks, and filter pads with a high efficiency in

Section: D
Revision: 0
Date: 30 July 1985

removing small particle size solids will be placed in line between the tank and the pump. The columns will be operated in series. The carbon will be self-contained in an "envelope" so it can be easily placed in and removed from the columns as a unit. The spent carbon will be placed in 55-gallon drums and will normally be transported for off-site treatment at NAVORDSTA or other permitted facilities.

Any shipments of CHS transported off-site will be accompanied by a completed manifest, and conducted in accordance with Regulations 10.51.03 through 10.51.04. The transporter's identification number for shipments to NAVORDSTA is MD-4170090001.

A 1.0 mg/L maximum level will be used as the discharge limit for TNT/RDX for effluent from the carbon columns.

The carbon treatment system is typically used 6 to 10 times a year, and treats approximately 110 gallons of pink water per use. The carbon treatment system will be used during or immediately after each washing. If the equipment is inoperable during a scheduled washout, the volume of the stainless steel tank is sufficient to contain the pink water until the columns are returned to service.

There will be no long-term accumulation of pink water. This will eliminate the possibility of a spill release between washouts.

The system will be operated by trained NAVEODTECHCEN personnel. These personnel have completed the required safety and training courses detailed in Section H.

Section: D
Revision: 0
Date: 30 July 1985

APPENDIX D.1
TANK DATA SHEET

FIGURE D.1-1
TANK DATA SHEET

LOCATION NAVEODTEHCEN Indian Head, Md.

TANK DESIGNATION Pink Water Accumulation Tank

PROCESS CONDITIONS

Vessel Fluid Liquid (pink water)

Specific Gravity 0.99 Freeboard At Working Vol. N/A

Normal Operating Press., PSIG N/A Temp., °F Ambient

CONSTRUCTION DETAILS

	Material	Thickness	Type
Bottom	steel	between 2-3 gauge	stainless
Shell	steel	between 2-3 gauge	stainless
Head (Ends)	steel	between 2-3 gauge	stainless

Working Vol. USG 1223.5

Elev. Above Grade below grade

Tank I.D. _____

Design Code Used _____

Anchorage none except static weight

Insulation None

Method of Construct. _____

Tank Height or Length (3.5 ft. O.D.

Date in Service _____ x 17 ft. long)

Connections

Tank Sketch

Item No.	Size In.	Gasket	Service
1			influent
2			
3	2.0		effluent
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

REMARKS (1)inlet for influent pink water will be the existing rectangular openconcrete channel.

(2)effluent line will feed to carbon adsorption columns.

(3)Tanks will be located below grade within an existing in-ground concrete tank, which provides secondary containment.

E — Groundwater Monitoring

Section: E
Revision: 0
Date: 30 July 1985

SECTION E

GROUNDWATER MONITORING

The groundwater monitoring requirements of COMAR 10.51.05.06 do not apply to the CHS management units at the Activity. The subject regulations apply to surface impoundments, landfills, or land treatment facilities. None of these facilities or operations exist or are planned for NAVEODTEHCEN.

F — Procedures to Prevent Hazards

Section: F
Revision: 0
Date: 30 July 1985

SECTION F

PROCEDURES TO PREVENT HAZARDS

The information provided in this section is submitted in accordance with the requirements of COMAR 10.51.07.02A(4), s, t, w, and y. The following subsections address the required information for the pink water management area.

- F-1 Security
- F-2 Inspection Requirements
- F-3 Preventions and Preparedness Requirements
- F-4 Prevention Procedures, Structures, and Equipment

F-1 Security

F-1a Security Procedures and Equipment

NAVEODTECHCEN meets the requirements for security procedures and equipment through a combination of 24-hour surveillance of entry into the facility and various barriers and warning signs at the CHS management area.

F-1a(1) Twenty-four Hour Surveillance System

Military security is maintained at NAVEODTECHCEN, including 24-hour surveillance at the highway entrance. A full-time security staff continuously patrols the grounds and buildings, and monitors the integrity of fences and other barriers.

The property is located on a peninsula and is surrounded by a combination of water, i.e., the Potomac River, Mattawoman Creek, and Chicamuxen Creek; and a heavily wooded area. There is an armed guard at the main entrance. The gate is open Monday through Friday 0600 to 1700. At all other times the gate is locked with access only by card key or from the CDO. All visitors or contractors must receive a visitor's pass upon entering the facility. This pass is to be returned to security personnel before departure.

Section: F
Revision: 0
Date: 30 July 1985

F-1a(2) Barrier and Means to Control Entry

F-1a(2)(a) Barrier

The existing pink water tank is completely surrounded by a chain link fence with lockable gates to restrict entry.

F-1a(2)(b) Means to Control Entry

As discussed in Subsection F-1a(1), entry to NAVEODTECHCEN is controlled by an armed guard stationed at the main entrance gate. Employees are required to show identification cards when reporting for work, and visitors and contractors entering the Station must sign a log sheet and obtain a visitor's pass.

Access to the pink water tank is controlled by locked gates.

F-1a(3) Warning Signs

Warning signs are posted on the fence at the area. These signs are legible from a distance of 25 feet and are visible from road approaches. They bear the warning, "DANGER - UNAUTHORIZED PERSONNEL KEEP OUT."

F-2 Inspection Requirements

F-2a General Inspection Requirements

Trained NAVEODTECHCEN personnel will conduct regular inspections of the CHS management area for possible structural deterioration, operational problems, and the potential for discharges that could cause or lead to the release of the CHS that could adversely affect the environment or human health. These inspections include review of operating procedures to identify and correct potential problems before they occur.

Section: F
Revision: 0
Date: 30 July 1985

F-2a(1) Types of Problems

Table F-1 presents a schedule for inspecting safety and emergency equipment, security devices, and the pink water tank area. This schedule may be periodically revised to reflect additional operational, regulatory, or administrative requirements. The items listed in Table F-1 are considered important because of their role in preventing, detecting, or responding to environmental or human health hazards. Potential problems and concerns that should be checked as part of the inspections are provided for each item.

F-2a(2) Frequency of Inspection

The frequency of inspection is based on the need and the effectiveness of inspection to prevent the occurrence of an uncontrolled event, including consideration of the rate of possible equipment deterioration. Inspections are typically performed at the intervals presented in Table F-1. Regular and unannounced inspections are performed by trained NAVEODTECHCEN personnel, and the inspection logs retained for three calendar years preceding the current year.

If any malfunctions, deteriorations, or operating discrepancies are noted during the inspection, the inspector will submit a problem description and suggested procedure to eliminate the problem or discrepancy to supervisory personnel. The Emergency Coordinator will be notified in the event urgent resource response is required (see Section G).

F-2b Specific Process Inspection Requirements

F-2b(1) Accumulation Tank Inspection

Inspections of the tank area are conducted on a monthly basis. The details recorded on a typical inspection form are shown in Figure F-1. The area will be checked for:

- Integrity of the concrete and stainless steel tanks.
- Spills.
- Leaks.
- Security.

Section: F
Revision: 0
Date: 30 July 1985

Table F-1

Inspection Schedule

Item	Concerns and Potential Problems	Minimum Frequency
Safety and emergency response equipment	Inventory, accessibility, malfunction, cleanliness, availability	After each use.
Security devices: fences, gates, locks, warning signs, communication system	Absence, damage, deterioration, malfunction	After each use.
Pink water tank and area	Tank integrity, spills, appearance, warning signs, and security	After each use.
Carbon adsorption system	Spills, leaks, appearance, operation	Prior to each use and after each use.

Section: F
Revision: 0
Date: 30 July 1985

Date _____ Time _____ Inspector(s) _____
Pink Water Tank Area _____

Item	Potential Problems	Status		Date and Nature of Repairs/ Remedial Action	Observations
		Acceptable	Unacceptable		
1. <u>Security and Facility Appearance</u>					
Warning signs	Placement Damage Legibility				
Obstructions	Blockage of entrance gate				
Housekeeping	Appearance				
2. Stainless steel tank	Leakage Deterioration Liquid level				
3. Concrete tank (secondary containment)	Accumulated precipitation Cracks Deterioration of coating				
4. Carbon adsorption columns	Leaks/spills operation				

FIGURE F-1 TYPICAL INSPECTION FORM FOR PINK WATER MANAGEMENT AREA

Section: F
Revision: 0
Date: 30 July 1985

The potential problems on the inspection form represent only a guide for the inspector to perform a thorough inspection. The inspector is required to check the status of each item and indicate whether its condition is acceptable or unacceptable. If the status is unacceptable, specific observations will be recorded and the needed repairs and actions will be specified, including the date and nature of the response required.

F-3 Preparedness and Prevention Requirements

NAVEODTECHCEN maintains the following equipment on-site:

- A fire call box telephone communication system for summoning emergency response resources is available at the compound housing Buildings 2024, 2025, and 2026 located approximately 200 yards away.
- Radio communications can be utilized in the event of power failure, or the need to contact off-site emergency response resources.
- Portable fire extinguishers are available at Building 2108. Spill control and decontamination equipment is available at Building 2SN.
- Fire-fighting water is available. A hydrant on Archer Road near Building 2109SN (approximately 200 yards away) is capable of delivering 940 gallons per minute.

A list of specific emergency response equipment and the respective locations is provided in Section G.

F-4 Preventive Procedures, Structures, and Equipment

F-4a Unloading Operations

CHS generated at the pink water facility flows by gravity through an open channel to the tank. Loading and unloading of pink water will not be required.

A forklift, hoist, hand truck, or similar equipment will be used to handle the 55-gallon drums of spent carbon.

Section: F
Revision: 0
Date: 30 July 1985

F-4b Runoff

The pink water management area includes a storm water runoff diversion berm, and a moveable channel flow control. The channel flow control, installed in the concrete channel that flows into the existing concrete tank, routes the stormwater around the tank when it is not in use.

F-4c Water Supplies

There are no adverse impacts anticipated from the accumulation and treatment units on the underlying groundwater. The system includes primary and secondary containment tanks to prevent hazardous constituents from entering the shallow, unused aquifer.

F-4d Equipment and Power Failures

Equipment failures and power outages will not affect the planned operation of the CHS tank and carbon treatment facility. Although the carbon treatment operation is dependent on specific equipment operation and electrical power for operation of the pump, CHS will be contained within the pipes and vessels of the system during power failures.

F-4e Personnel Protection Equipment

A list of available personnel protection equipment is presented in Appendix F.1. The selection and use of protective clothing and equipment is described in Appendix F.2. The procedures and need to use protective equipment is covered in the initial and annual personnel training program (see Section H) for persons involved with CHS management. The protective equipment is routinely stocked at NAVEODTECHCEN at the Fire Station in Building 2SN, and in Building 2019.

F-5 Prevention of Reaction and Precautions for Handling Reactive Wastes

Although the constituents of pink water can be reactive, explosive, or shock sensitive, pink water is not a reactive substance. The pink water, which normally contains reactive constituents such as TNT and RDX, is stable when wet and is either held in this stable form in a holding tank, or passed through a carbon adsorption column to remove the reactive constituents.

Section: F
Revision: 0
Date: 30 July 1985

Spent carbon, in self-contained envelopes, is drummed and transported to NAVORDSTA or another acceptable facility for subsequent treatment. Drums of spent carbon are not stored, treated, or disposed at NAVEODTEHCEN. Filter cloth is removed from the open concrete channel after each operation and is thermally treated at Range 3.

The carbon columns and the accumulation tank for pink water are located more than 50 feet from the nearest property line. This complies with the National Fire Protection Association's (NFPA's) buffer zone requirements for tank and container storage of ignitable or reactive wastes.

Section: F
Revision: 0
Date: 30 July 1985

APPENDIX F.1

EQUIPMENT AND PERSONNEL PROTECTION EQUIPMENT
AVAILABLE AT NAVEOTEHCEN, BUILDING 2019

Section: F
Revision: 0
Date: 30 July 1985

APPENDIX F.1

EQUIPMENT AND PERSONNEL PROTECTION EQUIPMENT
AVAILABLE AT NAVEODTEHCEN, BUILDING 2019

A. Engineer construction equipment available to erect a dike in case of a leak at the pink water system includes the following:

- Backhoe.
- Hand tools (i.e., shovels, etc.).
- Sandbags.
- Sorbent.

B. Personal protective equipment available:

- Coveralls.
- Boots.
- Gloves.
- Organic vapor respirators.

Section: F
Revision: 0
Date: 30 July 1985

APPENDIX F.2

SELECTION AND USE OF PROTECTIVE CLOTHING AND EQUIPMENT

CHAPTER 6

PROTECTIVE CLOTHING AND EQUIPMENT

0601. GENERAL PROVISIONS

1. Personal protective equipment consists of garments or devices to protect individuals from specific hazards encountered in the performance of their jobs. These hazards must be kept to a minimum through engineering design or by changes in methods or processes. If it is impractical to eliminate a hazard, its source should be guarded, isolated or confined so that personnel will not be exposed. Protection by mechanical means is generally more reliable than protection which is dependent upon human behavior. However, there are some hazards which cannot be totally eliminated by mechanical means. For these situations, SJPs and work permits contain specific requirements for personal protective equipment and clothing.

2. Preemployment and preplacement physical examinations shall include a determination of the individual's ability to wear the protective equipment which is required.

0602. SCOPE

All NAVORDSTA personnel and plant visitors shall comply with the local requirements for the use of personal protective equipment, as specified in the SJPs for the operation and area. Public Works Department trades personnel shall wear protective equipment appropriate for the hazards of the job being performed.

0603. SELECTING EQUIPMENT

Purchases of protective equipment that is not a standard use item at NAVORDSTA must be approved by the Safety Department. Federal and Military Specifications, Department of Navy Instructions, National Institute for Occupation Safety and Health, American National Standards Institute and other nationally recognized publications are sources which provide guidance in establishing criteria for personal protective equipment.

1. Table 6-1 provides a checklist for the selection of personal protective clothing and equipment for various hazardous situations. This table can be used for guidance by supervisors and SJP writers. Final determination of the type of equipment needed will be made by the Safety Department, in conjunction with the Industrial Hygienist, and will be prescribed in the appropriate SJP or work permit.

TABLE 6-1

HAZARDOUS SITUATION	PROTECTIVE EQUIPMENT REQUIRED
Heavy Impact of Falling Object	Head: plastic hard hats Knees, Legs, and Ankles: fiber or metal leggings Feet and Toes: steel box toe shoes.
Moderate Impact	Head: plastic bump cap or plastic hard hat Feet and Toes: steel box toe shoes
Large Flying Particles or Objects	Head: plastic hard hat Eyes: goggles, spectacles with side shields Face: plastic face shields Fingers, Hands and Arms: leather gloves or mittens, sleeves Trunk: leather or canvas fiber aprons, coats or jackets Knees, Legs, and Ankles: leather, fiber metal or flame-resistant duck pants, knee guards, leggings, or spats
Small Flying Particles	Head: plastic hard hat Eyes: goggles, spectacles with side shields, plastic face shields Fingers, Hands, and Arms: leather or duck fabric gloves or mittens, sleeves Trunk: leather or canvas fiber aprons, coats or jackets Knees, Legs and Ankles: leather, fiber metal or flame-resistant duck pants, knee guards, leggings or spats
Dusts	Eyes: goggles, spectacles with side shields, plastic face shields Face: plastic face shields Respiratory: approved dust, airline, or abrasive blasting respirator
Sparks and Metal Spatter	Head: approved hard hat, cotton or wool cap Eyes: goggles, spectacles with side shields, plastic face shields Face: plastic face shields

TABLE 6-1 (cont'd)

HAZARDOUS SITUATION	PROTECTIVE EQUIPMENT REQUIRED
Sparks and Metal Spatter (Cont'd)	<p>Fingers, Hands, and Arms: leather, flame-resistant duck or aluminized fabric gloves or mittens, sleeves</p> <p>Trunk: leather aprons, coats or jackets</p> <p>Knees, Legs, and Ankles: leather, fiber metal or flame-resistant duck pants, knee guards, shin guards, leggings or spats</p> <p>Feet and Toes: leather shoes, foundry shoes</p>
Splashing Metal	<p>Head: approved hard hat</p> <p>Eyes: goggles, spectacles with side shields, plastic face shields</p> <p>Face: wire screen shield</p> <p>Fingers, Hands, and Arms: leather, flame-resistant duck or aluminized fabric gloves, mittens or sleeves</p> <p>Trunk: leather aprons, coats, or jackets</p> <p>Knees, Legs, and Ankles: leather, fiber metal or flame-resistant duck pants, knee guards, leggings or spats</p> <p>Feet and Toes: leather shoes, foundry shoes</p>
Splashing Liquids and Chemicals	<p>Head: approved hard hat</p> <p>Eyes: goggles, hood</p> <p>Face: plastic face shields, hoods</p> <p>Respiratory: chemical-resistant suits with air supply</p> <p>Fingers, Hands, and Arms: rubber, natural rubber, plastics, synthetic fabrics, coated glass fiber, or other chemical-resistant gloves or mittens, sleeves</p> <p>Trunk: rubber, plastic, or other chemical-resistant material</p> <p>Knees, Legs, and Ankles: rubber, plastic, or other chemical-resistant material</p> <p>Feet and Toes: nonskid shoes with rubber or neoprene soles, rubber or neoprene overshoes</p>

TABLE 5-1 (cont'd)

HAZARDOUS SITUATION	PROTECTIVE EQUIPMENT REQUIRED
Splashing Liquids and Chemicals (cont'd)	Whole body: coveralls, overalls, or liquid hazard suit of impervious materials
Mists, Vapors, Gases, Fumes and Smoke	<p>Eyes: goggles</p> <p>Face: plastic face shields for mists</p> <p>Respiratory:</p> <p>Immediately dangerous to Life: self-contained apparatus, hose mask with blower, gas mask with special filter (restricted)</p> <p>Not immediately Dangerous to Life: air-line respirator, hose mask without blower (75 foot maximum length of hose), chemical cartridge respirator with special filter</p> <p>Fingers, Hands, and Arms: rubber, natural rubber, plastic, synthetic fiber, coated glass fiber, or other chemical-resistant gloves or mittens, sleeves, protective creams</p> <p>Trunk: rubber, plastic, or other chemical-resistant material</p> <p>Knees, Legs and Ankles: rubber, plastic or other chemical-resistant material</p> <p>Feet and Toes: conductive shoes (for explosive gases, vapors, or other material)</p>
Hot Materials	<p>Head: approved hard hat</p> <p>Fingers, Hands, and Arms: leather gloves, mittens, hand pads, or finger cots, leather, or flame-resistance duck sleeves</p> <p>Trunk: leather aprons, coats, or jackets</p> <p>Knees, Legs, and Ankles: leather or flame-resistant duck pants, knee guards, leggings, or spats</p> <p>Feet and Toes: wood soles</p>

TABLE 6-1 (cont'd)

HAZARDOUS SITUATION	PROTECTIVE EQUIPMENT REQUIRED
Heat	<p>Head: approved hard hat, cotton or wool cap</p> <p>Fingers, Hands, and Arms: leather, aluminized fabrics, glass fiber insulated gloves, mittens, or hand pads, flame-resistant fabric (for radiant heat) sleeves</p> <p>Trunk: flame-resistant fabrics, aluminized fabrics for radiant heat</p> <p>Knees, Legs and Ankles: flame-resistant duck, aluminized fabrics for radiant heat</p> <p>Feet and Toes: leather or wood soles, thermal insulated shoes</p> <p>Whole Body: aluminized garments for radiant heat, vortex tube with air cooled suits</p>
Moisture and Water	<p>Head: approved hard hat</p> <p>Fingers, Hands, and Arms: rubber, oiled fabrics, plastic, coated glass fiber gloves, mittens or finger cots, rubber oiled fabrics, or plastic sleeves</p> <p>Trunk: rubber or plastic material</p> <p>Knees, Legs and Ankles: rubber or plastic material</p> <p>Feet and Toes: nonskid shoes, leather or wood soles, rubber or neoprene overhsoes</p> <p>Whole Body: garments of rubber, plastic or other impervious material</p>
Slips and Falls	<p>Feet and Toes: nonskid shoes</p>
Cuts and Abrasions	<p>Head: approved hard hat</p> <p>Fingers, Hands, and Arms: leather metal mesh, or finger cots, leather sleeves</p> <p>Trunk: leather or canvas fiber aprons, cots or jackets</p> <p>Knees, Legs and Ankles: leather or fiber metal pants, knee guards, shin guards, leggings or spats</p> <p>Feet and Toes: steel box toe or steel toe caps</p>

TABLE 6-1: (cont'd)

HAZARDOUS SITUATION	PROTECTIVE EQUIPMENT REQUIRED
Dermatitis	Head: approved hard hat, cotton or wool cap Face: plastic face shield, protective barrier creams Fingers, Hands, and Arms: rubber, synthetic rubber, plastic or cotton gloves, protective barrier creams Trunk: rubber or plastic material Knees, Legs, and Ankles: rubber or plastic material Feet and Toes: rubber boots, wood soles shower sandals (paper or wood)
Electricity and Electric Shock	Head: plastic-rubber or plastic hard hat Fingers, Hands, and Arms: rubber gloves and sleeves resistant to 10,000 volts for three minutes Trunk: rubber material Knees, Legs and Ankles: rubber material Feet and Toes: non-conductive safety toe shoes
Explosives	Head: cap Fingers, Hands and Arms: gloves Trunk: powder uniform Feet and Toes: conductive safety shoes
Machinery	Head: cap (women), cotton or wool caps Fingers, Hands, and Arms: flame-resistant duck sleeves Trunk: rubber, plastic, or canvas fiber aprons, coats, or jackets Knees, Legs, and Ankles: fiber material or flame-resistant duck pants, knee guards, shin guards, leggings or spats Feet and Toes: steel box shoes
Reflected Light and Glare	Eyes: goggles, spectacles with side shields with filter lenses
Welding	Eyes: goggles-welders' eyecup, helmets, or hand shields with filter lenses

TABLE 6-1 (cont'd)

HAZARDOUS SITUATION	PROTECTIVE EQUIPMENT REQUIRED
Welding (cont'd)	Face: helmets or hand shields with filter lenses, face shields
Radiant Energy (Intense)	Eyes: helmets (filter lenses) with metal or plastic spectacles, hand shields (filter lenses) with metal or plastic spectacles Face: helmets or hand shields with filter lenses
X and Gamma Radiation	Fingers, Hands, and Arms: leaded rubber or leather gloves Trunk: leaded rubber or leather apron
Laser Radiation	Eyes: protective eyewear in accordance with BUMED Instruction 6470.14
Radioactive Aerosols and Gases	Respiratory: special respiratory devices Whole Body: radiation exposure suits of plastic or paper with special respirators
Noise	Ears: plug or insert, cup or muff, ear protectors, helmets

G — Contingency Plan

Section: G
Revision: 0
Date: 30 July 1985

SECTION G

CONTINGENCY PLAN

G-1 General Information

Copies of this Contingency Plan and all revisions will be retained by the Emergency Coordinator (EC), the alternate EC, the Station fire department, the NAVORDSTA medical clinic, and the Police Protection Branch. This plan will be reviewed by the EC on an annual basis so that the designated response actions and phone numbers/contacts are maintained up-to-date. The review will include an analysis of any incident, which activates the Plan, by the EC and supervisory personnel so that recommendations to prevent a recurrence of the incident can be formulated. This Plan will be subsequently updated annually and after each use to minimize the potential for recurrence of the incident.

G-1a Location

NAVEODTEHCEN is located on a peninsula in Charles County, Maryland, about 25 miles south of Washington, DC. The facility consists of approximately 1,100 acres on property owned by the Naval Ordnance Station (NAVORDSTA). Approximately 250 people are employed in support of the facility's mission.

G-1b Mission

NAVEODTEHCEN's mission is to conduct research, development, testing, and evaluation in technical matters concerning explosive ordnance disposal (EOD). This mission includes developing procedures for rendering safe conventional and special weapons, guided missiles, biological and chemical munitions, tools, equipment, and techniques, both United States and foreign. The NAVEODTEHCEN is a key Navy activity in discharging the Navy's responsibility to the Department of Defense and to the Department of the Army and Air Force, and other agencies, in the matters relating to EOD.

Site operations at NAVEODTEHCEN generate wastes designated as controlled hazardous substances (CHS). CHS will continue to be generated and treated at NAVEODTEHCEN.

Section: G
Revision: 0
Date: 30 July 1985

G-2 Emergency Coordinators

Since NAVEODTECHCEN is a military activity, an individual with detailed knowledge of the facility and authority to commit resources will be on-base at all times. After hours and when the EC is not available, the Executive Officer (XO) will be informed of CHS emergency events.

The EC, or the alternate, as first responder, will coordinate activities to contain, control, or mitigate a release using the resources listed in Subsection G-5. Additional on-Station resources can be accessed through department heads. The Commanding Duty Officer (CDO) at 301-743-4545 will coordinate assistance from other Federal installations and outside contractors, if necessary. The emergency coordinators are as follows:

Primary Emergency Coordinator

Harry Frauenfelder
Work phone number: 301-743-4631/4514

Alternate Emergency Coordinator and After Hours Contact

Executive Officer (XO)
Phone number: 301-743-4225/4545

G-3 Implementation of the Contingency Plan

The decision to implement the Contingency Plan depends on whether an imminent or actual incident could threaten human health or the environment.

Personnel who observe or otherwise detect an imminent or actual emergency situation will immediately warn others working nearby and notify the EC. To alert all potentially affected personnel, the EC will instruct the Station Police Protection Branch to notify all department heads of the emergency situation.

G-4 Emergency Response Procedure

G-4a Notification

During working hours the detecting personnel will immediately report the incident to the Emergency Coordinator (EC) or to their supervisor, who in turn will notify the EC.

Section: G
Revision: 0
Date: 30 July 1985

After working hours the detecting personnel will immediately notify the CDO. The CDO will then:

- Notify the EC.
- Notify the Executive Officer (the alternate EC).
- Notify the appropriate facility supervisor, fire protection, police protection, and NAVORDSTA Branch Medical Clinic, if required, using the numbers listed in the latest NAVEODTEHCEN telephone directory.

If the Emergency Coordinator is unavailable, the Alternate Emergency Coordinator will be contacted. If the alternate EC is unavailable, the CDO will notify the Police Protection Branch at NAVORDSTA of the emergency event.

The NAVEODTEHCEN personnel listings will be kept and maintained up-to-date at the CDO's office. Additional listings will be kept by the CO, XO, and by facility security.

G-4b Identification of Controlled Hazardous Substances

The CHS managed by this facility includes pink water (primarily TNT and RDX), explosives-contaminated filter fabric, and spent carbon. Identifying the CHS involved in an emergency event can, therefore, be done by visual inspection. If it is unknown whether a substance is hazardous, the substance will be analyzed in accordance with the Waste Analysis Plan.

G-4c Assessment

Upon being notified, the EC will proceed to the site of the emergency and will determine or estimate the following:

- The source of the spill or release, the proper actions to stop it and to prevent further spread.
- The potential impact(s) on human health or the environment.
- The amount and geographic extent of the spill/release.

Section: G
Revision: 0
Date: 30 July 1985

- The resources (personnel and materials) necessary to contain and clean up the spill/release. The EC will advise the Commanding Officer if off-Station assistance is required or is likely to be required.
- The EC will determine off-Station notification requirements (Table G-1) and prepare the appropriate messages for release by the XO/CO.

G-4d Control Procedures

Although no contingency plan can forecast all of the potential emergency situations at a facility, potential incidents can be identified and appropriate responses developed for them.

Several potential emergency situations that could be encountered at NAVEODTECHCEN are identified below.

- Natural Disasters.
 - 100-year rainstorm or hurricane.
 - Electrical storm.
- Accidents.
 - Fire or explosion.
 - Controlled hazardous substances spill/release.
 - Personnel physical injury.

This CHS Contingency Plan has not been implemented at this activity to date because the incidents listed above have either not occurred or have not involved CHS. In the unlikely event one does occur, the appropriate emergency responses are discussed in the subsections that follow.

G-4d(1) 100-Year Rainstorm or Hurricane

The pink water area is located on a peninsula adjacent to Mattawoman Creek near its confluence with the Potomac River. It is likely that floodwaters from a 100-year storm event (i.e., 100-year rainstorm or hurricane) will inundate the immediate area in which the pink water tank and treatment unit are located. To avoid a spill or release of CHS to flood waters, the ordnance demilitarization operations can be scheduled to avoid contact of CHS with high water levels.

Section: G
Revision: 0
Date: 30 July 1985

Table G-1

Controlled Hazardous Substances Pollution Control
Equipment and Location¹

Material	Location	Telephone Number
Maps and charts ¹	Building 351 Public Works Office	Ext. 4288/4286
Boat, motor, gasoline, and life preservers ¹	Building 510	Ext. 4269
Floating boom (Class II), boom warning lights, and workboats ¹	Building 406	Ext. 4269
Nets and absorbent mats ¹	Building 406	Ext. 4269
Pumps ¹	Building 406	Ext. 4269
Drums ¹	Outside Building 406	Ext. 4269
Sandbags ¹	Building 24	Ext. 1289
Soda ash ¹ (sodium carbonate)	Building 304 or 263	Ext. 4722/4677
Acetic acid ¹	Building 304	Ext. 4677
Hydrochloric acid ¹	Building 304	Ext. 4677
Rail car (absorbents) (USN 64-04245) ¹	Near Building 456	Ext. 4269
Rail car (floating boom) (USN 61-03600) ¹	Between Buildings 127 and 412	Ext. 4269

¹Available at NAVORDSTA.

Section: G
Revision: 0
Date: 30 July 1985

Table G-1
(continued)

Material	Location	Telephone Number
Construction equipment -- Backhoe, hand tools, sandbags, and sorbent	Building 2019	301-743-4631/4514
Personnel protective equipment -- Coveralls, boots, gloves, and organic vapor respirators.	Building 2019	301-743-4631/4514

¹Available at NAVORDSTA.

Section: G
Revision: 0
Date: 30 July 1985

At the time of forecasted flood conditions, the inner accumulation tank and carbon columns will be moved out of the flood plain. If the carbon system is in operation, the operation will be terminated, the process allowed to go to completion in the columns, and the pipes decontaminated. Filter fabric in the open concrete flow channel will be placed in drums and relocated with the process units as described below. The piping will be decontaminated by running water through the piping into the columns. The inner tank will then be moved out of the flood plain using a crane and other necessary equipment. The portable carbon columns will also be moved out of the flood plain. The relocation process requires approximately 4 hours.

Drawing 15455A illustrates the extent of the 100-year flood plain. The flood plain completely encompasses Range 3, the area where CHS-contaminated filter fabric is thermally treated. However, since appreciable quantities of wastes or residuals are not stored or otherwise maintained at Range 3, the environmental impact of a 100-year flood would be negligible.

The operation plan in response to flood conditions at NAVEODTECHCEN will include the following:

1. Flood Warning

- a. A flood warning will be received by teletype at the Naval Ordnance Station Communications Center, Building 20 (telephone 743-4144/4543) and forwarded to the NAVEODTECHCEN EC and CDO. This warning will be from the Naval Polar Oceanographic Center, Suitland, Maryland (telephone 763-1111). Other alternate forecasts are available from the National Weather Service. The forecasts will generally include a prediction of the flood elevation and the approximate time that the flood waters will crest.
- b. During duty hours, the NAVORDSTA Communications Center will call the NAVEODTECHCEN Emergency Coordinator to relay the flood warning. Routine forecasts are distributed through the Station's Mail and File Branch, with delivery at the Emergency Coordinator's office daily. If the EC cannot be reached, the flood warning will be relayed to the CDO.
- c. After duty hours the NAVORDSTA Communications Center will inform the CDO. The CDO will contact the XO.

Section: G
Revision: 0
Date: 30 July 1985

- d. The EC (or the alternate EC) will review the forecasted flood/high tide predictions to determine if flood control actions are required to protect the CHS management area. If action is required, the EC will consult with the XO and will inform the NAVORDSTA Public Works Officer or Assistant Public Works Officer to proceed with the action outlined in the paragraphs that follow.

2. Response Operations

- a. Concept of operations: The CHS accumulation and treatment units will be removed from the area to prevent contact with floodwaters. The EC will direct the Public Works Officer to visit the area to assess the situation, including equipment needs.
- b. Removal operations: A working party, consisting of the necessary operating and supervisory personnel from the NAVORDSTA Public Works Department, will be assembled at the area. The working party will use a crane to move the units to an area above the predicted flood elevation, i.e., the area around the magazine Buildings 2024, 2025, and 2026.
- c. Replacement operations: After the flood situation, the CHS treatment units will be returned to their normal locations and subsequently returned to service.

G-4d(2) Electrical Storm

The frequency of electrical storms is generally greatest during the summer months. The pink water accumulation tank could conceivably be struck by lightning. Damage to the tank resulting from a lightning strike would be structural. Fires or explosions are not expected because of the aqueous nature of the CHS held in the tank.

Response measures to a structural fire in the building which houses the carbon columns would involve activating the NAVORDSTA fire department to extinguish the fire using water, foam, or dry chemicals. Debris, runoff, and other potentially contaminated materials resulting from fire-fighting efforts would be handled as described in Subsection G-4d(3).

Section: G
Revision: 0
Date: 30 July 1985

G-4d(3) Fire or Explosion

An appropriate response for relatively small fires involving CHS is to blanket the area affected with water, fire suppressant foam, or dry chemicals. Contained or pooled firewater, foam, and chemicals used in the firefighting effort will be collected in drums, sampled, and disposed of as a CHS, unless otherwise indicated by analyses. During the response, the Police Protection Branch will be utilized to control and limit vehicular access to the scene.

G-4d(4) Chemical Spill

Spills of pink water from the stainless steel tank will be contained by the existing concrete tank. From this secondary containment, the CHS can be pumped into containers (i.e., drums) and transferred back to the stainless steel tank or pumped directly into the channel or tanks.

G-4d(5) Personnel Physical Injury

Personnel engaged in handling the CHS at NAVEODTEHCEN are susceptible to physical injuries including burns, back injuries, falls, cuts, and chemical contact.

Responses to personnel physical injuries will include the following steps:

- Evacuate the victim if there is a possibility of explosion, fire, or direct contact with CHS. Administer first aid at a remote location.
- Administer first aid to the victim in-place, if the above conditions do not exist.
- Transport the stabilized victim(s) to the NAVORDSTA medical clinic for additional care.
- In cases of severe physical trauma, the victim can be transported to:

Washington Hospital Center
Trauma Emergency Center
202-541-6701
202-541-0500

Section: G
Revision: 0
Date: 30 July 1985

- In cases of severe burns, the victim can be transported to:

Washington Hospital
Burn Center
202-541-6701
or
University of Maryland Hospital
Maryland Institute for Emergency Medicine
Baltimore, Maryland
301-528-7813

G-4e Prevention of Recurrence or Spread of Fires, Explosions, or Releases

Since the pink water area is the only CHS area at the site, there is no potential for fires or releases to spread to other CHS stored at NAVEODTEHCEN.

G-4f Storage and Treatment of Released Material

Once an incident is under control, the EC will make arrangements for the treatment or disposal of recovered residuals, contaminated soil, surface runoff or other contaminated material contained on-site, as a result of implementation of the plan. Treatment of recovered pink water will be conducted in the carbon adsorption column. Contaminated carbon will be transported to NAVORDSTA for treatment.

G-4g Incompatible Waste

The only CHS managed at the facility is pink water, therefore, there are no incompatible substances in the vicinity of the CHS management area.

G-4h Post-Emergency Equipment Maintenance

Emergency equipment used during an emergency event will be decontaminated. Equipment not suitable for reuse will be replaced. Cleanup may also require removal of contaminated soil. Personnel decontamination will include showers and cleaning of clothing and equipment. Contaminated materials, including sorbents, cloth, soil, wood, etc. that cannot be decontaminated will be disposed of at an appropriate facility.

Section: G
Revision: 0
Date: 30 July 1985

Prior to resuming operations at the CHS management area, the Maryland Secretary of Health and Mental Hygiene will be notified that post-emergency equipment maintenance has been performed and that operations will be resumed.

G-4i Container Spills and Leakage

Spills of pink water that could arise during the handling of the stainless steel tank will be handled as discussed in Sub-section G-4d(4).

G-5 Emergency Equipment

A list of pollution control equipment available at the NAV-EODTEHCEN includes the following items:

- Sorbent.
- Backhoe.
- Sandbags.
- Hand tools - shovels, etc.
- Personal protective equipment.

The EC and CDO maintain a list of the individuals responsible for the equipment and their off-duty telephone numbers. Additional emergency response equipment, including personnel protective gear, is available at NAVORDSTA. The EC can access the NAVORDSTA CDO. A list of equipment available at NAVORDSTA is presented in Table G-1.

G-6 Coordination Agreements

Because the NAVEODTEHCEN is a tenant activity at NAVORDSTA, the coordination agreements in effect at NAVORDSTA also apply to NAVEODTEHCEN.

G-6a Police Protection

A Police Protection Branch (presently at 35 employees) is responsible for security at the NAVEODTEHCEN. Police Protection Group Regulations describe the procedures used by this organization.

Section: G
Revision: 0
Date: 30 July 1985

In addition to routine security, Police Protection personnel respond to all fire alarms and ambulance calls in order to control traffic and secure the area so that emergency personnel are not hampered in their response efforts. Police Protection personnel provide required assistance to the EC during emergency events. NAVEODTECHCEN is included in NAVORDSTA a Mutual Police Assistance Agreement with the Charles County (Maryland) Sheriff's Department. A copy of this agreement is attached as Appendix G.1. NAVEODTECHCEN also has verbal (unwritten) agreements with the Maryland State Police and the Maryland Department of Natural Resources, Marine and Inland Police to provide similar emergency assistance as required.

G-6b Fire Protection

The NAVORDSTA Fire Protection Branch (presently 39 employees) is responsible for fire safety at NAVORDSTA and NAVEODTECHCEN. A Fire Bill and the Fire Regulations describing the procedures used by this organization are available at the activity. The Fire Protection Branch maintains the following major equipment for response on a 24-hour basis:

- Seagraves pumper (1,000 gpm) (1978) with "telesquirt," a remotely operated nozzle on a 35-foot boom.
- Ward-79 pumper (1,000 gpm) (1982).
- GMC pumper (750 gpm) (1969).

One of these units is routinely stationed in Building 2 at NAVEODTECHCEN, and two are stationed at NAVORDSTA. A fourth pumper (750 gpm) is maintained as a reserve at NAVORDSTA in case of mechanical failure of one of the primary units.

The NAVEODTECHCEN is included in NAVORDSTA's Mutual Fire-fighting Assistance Agreement with Charles County, Maryland for fire and first aid response. A copy of the agreement is included in Appendix G.1.

G-6c Hospitals and Medical Support

The Branch Medical Clinic at the NAVORDSTA is staffed by personnel of the Naval Medical Command National Capital Region. The normal staff consists of two medical officers, one physician's assistant, 18 hospital corpsmen, one dentist, two dental assistants, one industrial hygienist, and one occupational health nurse.

Section: G
Revision: 0
Date: 30 July 1985

First aid treatment is provided to all personnel injured at the NAVEODTECHCEN. Injured personnel who require additional treatment are referred to the NAVORDSTA medical clinic or nearest appropriate facility such as Physicians' Memorial Hospital in La Plata, Maryland; Southern Maryland Regional Hospital in Clinton, Maryland; or Malcolm Grow Hospital at Andrews Air Force Base.

The NAVORDSTA medical clinic has three ambulances available to respond to emergency calls. Helicopter evacuation of injured personnel is available; however, the clinic ambulance service is normally used for routine evacuation of stabilized patients to nearby hospitals. At least three hospital corpsmen are always present at the clinic and at least one physician or physician's assistant is always on call at NAVORDSTA.

The clinic has a Mass Casualty Plan in effect at the site. This plan provides for the use of clinic ambulances to evacuate injured personnel to the clinic where they will receive initial treatment on a priority basis. Injured personnel who require further treatment can be evacuated to local hospitals in Charles County Rescue Squad ambulances if the clinic ambulances are not available. Appendix G.1 includes a copy of the mutual aid agreement.

G-6d Contractors

NAVEODTECHCEN does not have formal contracts with outside emergency response or cleanup contractors because the facility's forces are capable of containing and responding to most spills/ releases. If required and at the direction of the NAVEOTECHCEN EC, the head of the NAVORDSTA Public Works Department has legal authority to contract for outside assistance. Additional contractor support is available through the Commanding Officer, CHESNAVFACENGCOM. A list of contractors for the region who are registered with the U.S. Coast Guard, is contained in Appendix G.2.

G-7 Evacuation Plan

G-7a Evacuation Procedures

A detailed Local Fire Bill is posted at the CHS area. This local fire bill includes designated evacuation procedures for the area in the event of an emergency and also a method of requesting emergency assistance (two-way radio).

Section: G
Revision: 0
Date: 30 July 1985

G-7b Evacuation of the CHS (Pink Water) Management Area

The following routes (see Drawing 15455A) will be utilized for evacuation of personnel from the controlled hazardous substances storage area. These routes are shown on Drawing No. 15455A.

Primary Route	Right onto Archer Avenue, Archer Avenue to main gate
Regrouping Point	Parking lot of Buildings 2024, 2025, and 2026 (approximately 600 feet)
Alternate Route	Left onto Archer Avenue to the end of the peninsula and await further instructions

G-8 Required Reports

CHS releases that exceed the reportable quantity (RQ) will be reported to the National Response Center (NRC), which will provide additional notifications to Federal and state agencies. The RQ for wastes D003, K045, and K047 is 10 pounds. Reporting may be by message or by telephone and later confirmed by message. Reports to the NRC will be submitted by the EC. Insofar as possible, the message report should be complete and indicate if appropriate action has been taken to respond to the spill/release, and whether additional assistance is needed. If the initial message is not complete, then a follow-up report will be issued within 72 hours of the incident.

Section: G
Revision: 0
Date: 30 July 1985

APPENDIX G.1

NAVORDSTA MUTUAL ASSISTANCE AGREEMENTS

Mutual Police Assistance Agreement

This agreement, made and entered into this 21 st day of December 19 82 by and between the Charles County, Maryland Sheriff's Department and the Commanding Officer, Naval Ordnance Station, Indian Head, Charles County, Maryland.

WITNESSETH:

Whereas, each of the parties hereto maintains equipment and personnel for the protection of life, limb and property, and

Whereas, the parties hereto desire to augment the police protection available in their various agencies in the event of riot, insurrection or major disaster, and

Whereas, the lands of the parties hereto are adjacent or contiguous so that mutual assistance in an emergency is deemed feasible, and

Whereas, it is mutually deemed sound, desirable, practicable and beneficial for the parties to this agreement to render assistance to one another in accordance with these terms;

THEREFORE, BE IT AGREED THAT:

1. Whenever it is deemed advisable by the senior officer of the parties of this agreement, or by the senior officer of either party, on the scene of an emergency, to request police assistance under the terms of this agreement, he is authorized to do so, and upon receipt of such request the following action should be taken:

- a. Immediately determine if equipment and personnel can be spared in response to the request.
- b. What equipment and personnel most effectively should be dispatched.
- c. Forthwith dispatch such equipment and personnel as, in the judgment of the senior officer receiving the call, should be sent, with complete instructions as to the mission to be accomplished.

2. The request for assistance should include:

- a. Nature of the emergency
- b. Number of personnel requested
- c. Type of equipment, if needed
- d. The name and location of the ranking officer to whom the requested personnel should report.

3. The assisting personnel shall have the use of deadly force only in defense against an attack that may result in death or serious bodily injury to the officer or to an innocent bystander.

4. The assisting personnel shall not become involved in matters other than those pertaining to the emergency.

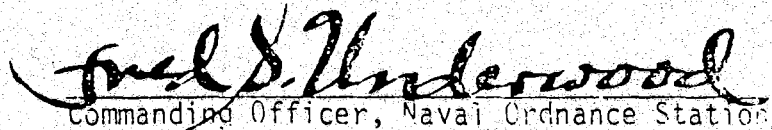
5. The Sheriff and his personnel are invited and encouraged to visit the Naval Ordnance Station for guided familiarization tours consistent with security requirements and, as feasible, to conduct pre-emergency planning inspections.

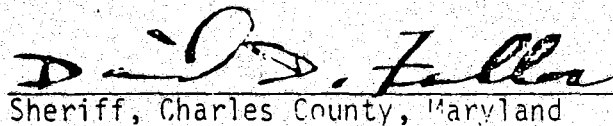
6. The technical heads of these parties are authorized to meet and draft any detailed plans and procedures of emergency operations to effectively be of assistance.

7. The rendering of assistance shall not be mandatory; but the party receiving the request for assistance should immediately inform the requester, if for any reasons, assistance cannot be rendered.

In Witness Whereof, the parties hereto have executed this agreement on the day and year first written above.

21 December 1982


Commanding Officer, Naval Ordnance Station


Sheriff, Charles County, Maryland

MUTUAL FIREFIGHTING ASSISTANCE AGREEMENT

THIS AGREEMENT, made and entered into this 10 th day of

November, 1977 by and between Charles County,

Maryland and the Commanding Officer,

U.S. Naval Ordnance Station.

WITNESSETH:

WHEREAS, each of the parties hereto maintains equipment and personnel for the suppression of fires within its own jurisdiction and areas, and

WHEREAS, the parties hereto desire to augment the fire protection available in their various establishments, districts, agencies and municipalities in the event of large fires or conflagrations, and

WHEREAS, the lands or districts of the parties hereto are adjacent or contiguous so that mutual assistance in a fire emergency is deemed feasible, and

WHEREAS, it is the policy of the Navy Department and of the municipalities or other districts and of their governing bodies to conclude such agreements wherever practicable, and

WHEREAS, it is mutually deemed sound, desirable, practicable, and beneficial for the parties to this agreement to render assistance to one another in accordance with these terms;

THEREFORE BE IT AGREED THAT:

1. Whenever it is deemed advisable by the senior officer of a fire department belonging to a party to this agreement, or by the senior officer of any such fire department actually present at any fire, to request firefighting assistance under the terms of this agreement, he is authorized to do so, and the senior officer on duty of the fire department receiving the request shall forthwith take the following action:

a. Immediately determine if apparatus and personnel can be spared in response to the call.

b. What apparatus and personnel might most effectively be dispatched.

c. The exact mission to be assigned in accordance with the detailed plans and procedures of operation drawn in accordance with this agreement by the technical heads of the fire departments involved.

d. Forthwith dispatch such apparatus and personnel as, in the judgment of the senior officer receiving the call, should be sent, with complete instructions as to the mission, in accordance with the terms of this agreement. Provided, however, that when a call for assistance is received by a Navy fire department, it shall be referred at once to the Commanding Officer of the activity concerned, or his duly authorized Duty Officer, before any equipment or personnel is dispatched.

2. The rendering of assistance under the terms of this agreement shall not be mandatory, but the party receiving the request for assistance should immediately inform the requesting service if, for any reason, assistance cannot be rendered.

3. a. Claims for costs incurred by fire services in firefighting on Federal property can be filed with the National Fire Administration, in accordance with enclosure (1) of this agreement.

b. No firefighting personnel below the age of eighteen (18) shall be permitted within the restricted areas of NAVORDSTA. It shall be the responsibility of the Officer-in-Charge of each responding apparatus to see that this requirement is adhered to.

c. Each mutual aid apparatus responding into the restricted areas of NAVORDSTA must be accompanied by an officer of the NAVORDSTA Fire Department.

d. Because of hazardous operations within the restricted areas of NAVORDSTA, radio transmissions must be kept to a minimum. Responding Mutual Aid apparatus will report "10-23" or "On the Scene" to Charles County Fire Headquarters before entering the restricted area.

e. All Mutual Aid apparatus responding to the restricted areas of NAVORDSTA will report to NAVORDSTA Fire Headquarters before entering any restricted areas.

4. The technical head of the fire department of the requesting service shall assume full charge of the operations, but if he specifically requests a senior officer of a fire department furnishing assistance to assume command, he shall not, by relinquishing command, be relieved of his responsibility for the operation; provided, that

the apparatus, personnel, and equipment of the agency rendering assistance shall be under the immediate supervision of and shall be the immediate responsibility of the senior officer of the fire department rendering assistance.

5. The chief fire officers and personnel of the fire departments of both parties to this agreement are invited and encouraged, on a reciprocal basis, to frequently visit each other's activities for guided familiarization tours consistent with local security requirements and, as feasible, to jointly conduct pre-fire planning inspections and drills.

6. The technical heads of the fire departments of the parties to this agreement are authorized and directed to meet and draft any detailed plans and procedures of operation necessary to effectively implement this agreement. Such plans and procedures of operations shall become effective upon ratification by the signatory parties.

7. This agreement shall become effective upon the date hereof and shall remain in full force and effect until canceled by mutual agreement of the parties hereto or by written notice by one party to the other party, giving ten (10) days notice of said cancellation.

IN WITNESS WHEREOF, the parties hereto have executed this agreement at Indian Head, Maryland on the day and year first above written.

J. A. Hawes
Commanding Officer, Naval Ordnance Station

H. D. White
Chas. Co. Vol. Firemen's Association

James E. Headley
Chas. Co. Asso. of Emer. Med. Services



DEPARTMENT OF THE NAVY
NAVAL LEGAL SERVICE OFFICE

WASHINGTON NAVY YARD
WASHINGTON, D.C. 20374

SFC:rac
5801
8 December 1982

From: Lieutenant Steve R. CONWAY, JAGC, USNR
To: Commanding Officer, Naval Ordnance Station, Indian Head, Maryland
Subj: Mutual Police Assistance Agreement between Charles County Police and
Naval Ordnance Station, Indian Head, MD
Encl: (1) Subject named agreement; copy of
Ref: (a) Conversation between LT CONWAY (NLSO) and Mr. Andrew Peterson (NCS)
of 8 December 1982

1. As requested during reference (a), a review was made of enclosure (1) to insure it conformed with applicable law and regulations. Specifically, Mr. Peterson wished to address the planned meeting between naval personnel and civilians on board Naval Ordnance Station, Indian Head.

2. The proposed agreement is not only in compliance with Navy Regulations but is exemplary of good relations between the civilian community and the Naval Ordnance Station. The agreement reflects well on the command.


S. R. CONWAY

Section: G
Revision: 0
Date: 30 July 1985

APPENDIX G.2

CONTRACTORS REGISTERED WITH THE U.S. COAST GUARD

Section: G
Revision: 0
Date: 30 July 1985

APPENDIX G.2

CONTRACTORS REGISTERED WITH THE U.S. COAST GUARD

Contractors registered with the USCG to provide for containment and cleanup of spills (Fifth Coast Guard District) are the following:

Clean America, Inc. 527 Chesapeake Avenue Baltimore, Maryland 21225	1-578-0956
George S. Goodhues and Son, Inc. 522 South Ann Street Baltimore, Maryland 21231	1-675-1630
J & L Industries, Inc. 6923 Ebenezer Road Baltimore, Maryland 21220	1-488-0800

To update this list, or to obtain additional names, call the U.S. Coast Guard Marine Safety Division, Portsmouth, Virginia at 1-804-398-6638

H — Personnel Training

Section: H
Revision: 0
Date: 30 July 1985

SECTION H

PERSONNEL TRAINING

The information in this section outlines the training program and its implementation for NAVEODTECHCEN's treatment facility in accordance with the requirements of COMAR 10.51.07.02A(14) (bb) and 10.51.05.02G.

Several of the training programs used at NAVEODTECHCEN are the same as those offered to personnel at NAVORDSTA.

H-1 Outline of the Training Program

H-1a Job Title and Duties

Key individuals at NAVEODTECHCEN are trained for accumulation and treatment of pink water. Specific responsibilities and duties of these individuals are listed in Appendix H.1 for each position title.

Individuals assigned to the outlined positions are required to be trained in CHS management as a requirement for working in these positions. Personnel training records will be kept until closure for current employees and for three years from the last calendar year of employment.

NAVEODTECHCEN may use contractors to assist in transporting spent carbon. These contractors are required to provide trained personnel for handling this material.

H-1b Training Content, Frequency, and Technique

Personnel training for CHS management activities has been divided into four training programs for various personnel categories. Table H-1 presents the personnel training requirements and frequency of attendance.

The Hazardous Waste Overview Seminar is intended for personnel responsible for directing and overseeing CHS activities at NAVEODTECHCEN. The course focuses on the regulatory and technical aspects of the activity's CHS management program and its implementation. Table H-2 lists typical course topics that are covered.

Section: H
Revision: 0
Date: 30 July 1985

Table H-1

Personnel Training Requirements¹

Personnel Category	Over- view (1)	HW Facility Operators (2)	Health and Safety (3)	Emergency Response (4)	6-month EOD School (5)
Facilities Manager (EC) ²	I	I	I	A	I
Staff Munitions Disassembly Specialists ²	I	I	I	A	I
CHS Facility (carbon system) Operators ²	I	I	I	A	I
Alternate EC	-	-	-	-	I

¹Frequency:

I - Initial, updated as needed

A - Annual

²These individuals have all completed at least 6 months training in EOD (Explosive Ordnance Disposal) School.

Training Programs

- (1) Hazardous Waste Overview Seminar (see Table H-2).
- (2) HW Facility Operators: Hazardous Waste Facility Operators' Course (see Table H-3).
- (3) Health and Safety: Safety Awareness, Protection, and First Aid Training (see Table H-4).
- (4) Emergency Response: Contingency Planning and Emergency Response Procedures (see Table H-5).
- (5) All employees that handle explosives receive 6 months training at the Explosive Ordnance Disposal (EOD) School headquartered at NAVORDSTA, and practical area training at NAVEODTEHCEN.

Section: H
Revision: 0
Date: 30 July 1985

Table H-2

Hazardous Waste Overview Seminar

-
- Department of Defense policy on environmental protection.
 - U.S EPA hazardous waste management regulations.
 - Description of facility and controlled hazardous substances management activities and units.
 - Waste characteristics and management utilization.
 - Procedures to prevent hazards.
 - Preparedness and contingency planning.
 - Other training programs.
-

Section: H
Revision: 0
Date: 30 July 1985

The Hazardous Waste Facility Operators' Course is intended for Navy personnel who actually handle, or otherwise manage, CHS at NAVEODTECHCEN. This course provides information and procedures on the operation of the CHS facilities in a manner that is safe and protective of human health and the environment, in accordance with regulatory requirements and Navy operating standards. Table H-3 presents the topics discussed in the course.

NAVEODTECHCEN also provides additional health and safety training to CHS management personnel, either through a separate course or as part of the Operators' Course. Table H-4 lists topics discussed.

An Emergency Response Training Seminar, including emergency response procedures and communications, notification lists, emergency equipment and utilization, evacuation plan, and reporting of emergency incidents is also conducted by the EC on an annual basis.

H-2 Implementation of Training Program

The Facility Manager is the director of the training program, and the personnel currently involved with CHS handling and treatment have been trained in the practices and procedures outlined in this section. All new personnel will complete the outlined training programs within 6 months of assignment to CHS duties or within 6 months of employment, whichever is later. No personnel assigned to NAVEODTECHCEN's CHS management program will work unsupervised prior to completion of the required training. In addition, all individuals involved have attended at least 6 months of EOD School.

The Facility Manager, in addition to the personnel office, will keep copies of training records (see Figure H-1 example) for each position title and assigned individual(s).

Section: H
Revision: 0
Date: 30 July 1985

Table H-3

Hazardous Waste Facility Operators Course

-
- Introduction to hazardous waste.
 - Hazardous waste problems.
 - Hazardous wastes and hazardous waste laws, regulations and policies.
 - Local regulations.
 - Health, safety, and environmental effects.
 - Hazardous waste labeling and packaging.
 - Hazardous waste considerations in the Navy.
 - Contingency Planning.
 - Spill response, clean-up, and decontamination.
-

Section: H
Revision: 0
Date: 30 July 1985

Table H-4

Topics for Health and Safety Course

-
- NIOSH incidents.
 - Respiratory protection.
 - Hearing protection.
 - Static electricity.
 - Personal safety gear.
 - Safety policy training education.
 - Special job procedures.
 - Prevention of explosive accidents case histories.
-

Table H-5

Topics for Contingency Planning and Emergency Response Course

-
- Emergency communication procedures and alarm systems.
 - Procedures for locating, using, inspecting, repairing, and replacing facility emergency and monitoring equipment.
 - Response to explosions and fires.
 - Evacuation routes and procedures.
 - Decontamination procedures.
-

TRAINING RECORDS

Employee _____

Title _____

Employee Number _____

Course Title	Date(s)	Hours of Instruction	Instructor	Location
Hazardous Waste Overview Seminar				
CHS Facility Operator's Overview Seminar				
Health and Safety				
Emergency Response				

FIGURE H-1 TYPICAL PERSONNEL TRAINING RECORD

Section: H
Revision: 0
Date: 30 July 1985

APPENDIX H.1

RESPONSIBILITIES AND DUTIES OF KEY PERSONNEL INVOLVED WITH CONTROLLED HAZARDOUS SUBSTANCE ACTIVITIES

Section: H
Revision: 0
Date: 30 July 1985

APPENDIX H.1

RESPONSIBILITIES AND DUTIES OF KEY PERSONNEL
INVOLVED WITH CONTROLLED HAZARDOUS SUBSTANCE ACTIVITIES

Position Title: Facilities Manager

Responsibilities and Duties:

- Emergency Coordinator for CHS-related incidents.
- Environmental and occupational safety and health coordinator.
- Preparation of manifests.
- Training of personnel.
- Recordkeeping.
- Packaging, labeling, and moving of CHS to NAVORDSTA or other permitted facility.
- Performs inspections.
- Develops and implements the Hazardous Waste Management Plan.
- Ensures compliance with the applicable CHS laws.
- Advises Command of action taken to correct any hazardous waste noncompliance situations identified.

Position Title: Staff Munitions Disassembly Specialists

Responsibilities and Duties:

- Conducts demilitarization of explosives devices using a steam generator.
 - Performs spill clean-up and provides CHS emergency response assistance.
 - Thermally treats filter fabric (explosives-laden), which are used to filter pink water from the demilitarization operations, at Range 3.
-

I — Closure Plan, Post-Closure Plan, and Financial Requirements

Section: I
Revision: 0
Date: 30 July 1985

SECTION I

CLOSURE PLAN, POST-CLOSURE PLAN, AND FINANCIAL REQUIREMENTS

I-1 General

This section is submitted in accordance with the requirements of the State of Maryland's regulations regarding closure of a CHS facility (COMAR 10.51.05.07). It identifies the steps that will be implemented to close the pink water tank and carbon treatment system at NAVEODTECHCEN. A copy of this section, herein referred to as the Closure Plan, will be maintained by the Facility Manager until the certification of closure completeness has been submitted and accepted by the State of Maryland.

The Station's Commanding Officer, or his designee, will notify the State of Maryland Secretary of Health and Mental Hygiene 180 days prior to the date that final closure begins.

I-1a Closure Performance Standard

A post-closure plan is not included because there will be no CHS remaining at NAVEODTECHCEN after completion of final closure.

I-1b Partial and Final Closure Activities

Partial closure is not anticipated for this activity. Final closure of the system is not scheduled at this time and is not anticipated in the foreseeable future.

It is not anticipated that Range 3 will ever be completely closed, but it is possible that the Activity may at some future date cease open burning of filter fabric (described in Section D). In this event, the tank used for open burning at Range 3 may be used for non-CHS-related treatment. Formal decontamination will not be conducted as the non-CHS burning will remove any residual explosive CHS present.

I-1c Maximum Waste Inventory

The stainless steel accumulation tank at NAVEODTECHCEN has the capacity to contain a maximum inventory of 1,223.5 gallons of liquid. It is assumed that the secondary containment tank will be empty at the initiation of closure activities. The maximum amount of carbon held in the treatment system at any one given time will be approximately 1,500 pounds.

Section: I
Revision: 0
Date: 30 July 1985

I-1d Inventory Removal, Disposal, or Decontamination of Equipment

Final closure of the system will proceed as follows:

- Any pink water remaining in the accumulation tank will be pumped through the treatment system, as described in Section D. Fresh carbon will replace spent carbon when the effluent concentration of TNT exceeds 1 mg/L (sampling and testing as stipulated in Section C).
- The inner tank will be rinsed with fresh water, which will be pumped through the entire treatment system. This will be repeated until the tank effluent is free of color. The inner tank will then be removed from the secondary containment tank.
- The concrete outer tank, if necessary, will be flushed with clean water, and the walls and floor of the concrete tank will be cleaned with a straw street broom, and the water pumped through the carbon system. Both tanks will be allowed to air dry.
- After the stainless steel and concrete tanks have been flushed, the activated carbon will be removed and packed in 55-gallon, open-top drums. The empty columns will be rinsed with freshwater. This rinsewater will be drummed and disposed or treated at an approved facility.
- Disposition of the decontaminated tanks and carbon system will be at the discretion of the Navy (i.e., alternate use or scrapping the units).
- The site will be visually inspected for residuals. All used materials such as rags, hoses, and coveralls will be taken to an approved facility for disposal.
- A registered professional engineer will inspect the site during and after closure, and certify that closure has been carried out in accordance with this plan.

I-1e Schedule of Closure

The final closure date for this activity is unknown, but anticipated to be after the year 2000.

Section: I
Revision: 0
Date: 30 July 1985

A breakdown of anticipated scheduling/timing for closure of the pink water management units is provided in Table I-1. The consecutive days shown in the table will be converted to actual calendar dates at the last revision of this plan.

I-2 Closure Cost Estimate

The closure cost estimates provided in Table I-2 have been prepared using the maximum inventory at closure as the cost basis. The costs presented in Table I-2 will be reviewed and adjusted for inflation on an annual basis. The adjustments, to be completed by the Facilities Manager, will be performed in accordance with 40 CFR 264.143(b) and COMAR 10.51.05.08, by multiplying the latest adjusted closure cost estimate by the latest inflation factor published by the Department of Commerce.

I-3 Financial Assurance Mechanism for Closure

The U.S. Navy, owner and operator of NAVEODTECHCEN, is legally responsible for all closure costs as outlined in Subsection I-2.

State of Maryland Controlled Hazardous Substances Regulations, COMAR 10.51.05.08, Financial Requirement, is addressed by a letter dated 15 June 1983 from CHESNAVFACENGCOM to the State of Maryland, as follows:

- Section 6001 of Public Law 94-580, 21 October 1976, the Resource Conservation and Recovery Act of 1976, Subtitle F, Federal Responsibilities, requires all branches of the Federal government having jurisdiction over or engaged in any activity that does or may result in the management or disposal of hazardous wastes to comply with Federal, state, interstate, and local requirements to the same extent as any person who is subject to such requirements, including the payment of reasonable service charges.
- Executive Order 12088, 13 October 1978, requires that the head of each executive agency will ensure that there will be sufficient funds requested in the agency budget to comply with applicable pollution control standards.
- Chief of Naval Operations Instruction 5090.1, 26 May 1983, requires that all Navy-wide facilities that are owned by the Navy or leased to the Navy must be designed, operated, monitored, and maintained to conform to all established Federal, state, and local standards.

Section: I
Revision: 0
Date: 30 July 1985

Table I-1

Schedule of Closure Activities

Step	Time Required
Notify State of Maryland Secretary of Health and Mental Hygiene of intent to initiate closure	180 days ¹
Remove/treat inventory	45 days
Flush system and decontaminate equipment	45 days
Inspect for and clean-up residuals, testing (if required)	45 days
Certification by professional engineer	45 days

¹Notification will be 180 days prior to initiating closure.

Section: I
Revision: 0
Date: 30 July 1985

Table I-2

Closure Cost Estimate

Item	Estimate
Treat remaining pink water (2 workers, 2 days) at \$30/hr	\$ 1,000.00
Flush system (2 workers, 2 days) at \$30/hr	\$ 1,000.00
Inspect facilities for visual signs of residuals (2 workers, 1 day)	\$ 500.00
Treatment of residuals (1,500 lbs thermally treated at \$0.50/lb)	\$ 750.00
Sampling and testing (potentially including rinsewater from tank)	\$ 1,000.00
Certification by P.E.	<u>\$ 1,000.00</u>
Total	\$ 5,250.00

Section: I
Revision: 0
Date: 30 July 1985

The financial requirements of RCRA and COMAR 10.51.05.08 are not service charges. The choice of instruments provided in the regulations with which to meet the financial requirements are not available to Federal agencies, such actions being prohibited. The second clause of 31 U.S. Code Section 665A, Anti-Deficiency Act states, "nor shall any such officer or employee involve the government in any contract or other obligation, for the payment of money for any purpose, in advance of appropriations; made for such purpose, unless such contract or obligation is authorized by law."

The choices of financial instrument are a letter of credit, a surety bond, or a trust fund; none of which are service charges.

Financial responsibility for closure of the controlled hazardous substances storage areas is in compliance with Congressional, executive, and agency mandates, as allowed.

I-4 Post-Closure Cost Estimate

Post-closure care is not required (see Subsection I-2).

I-5 Financial Assurance Mechanism for Post-Closure Care

Post-closure care is not required (see Subsection I-2).

I-6 Liability Requirements

The U.S. Navy, as an agency of the United States government, accepts legal and financial responsibility for sudden and non-sudden accidental occurrences that are directly or indirectly caused by the CHS management activities at NAVEODTEHCEN.

J — Other Environmental Laws

Section: J
Revision: 0
Date: 30 July 1985

SECTION J

OTHER ENVIRONMENTAL LAWS

J-1 NPDES Status

NAVORDSTA has 43 industrial wastewater outfalls that were permitted under NPDES permit No. MD003158. This permit, which expired on 30 September 1981, includes the outfalls at the Naval Explosive Ordnance Technology Center (NAVEODTECHCEN). The permitted outfalls are illustrated on Drawing No. 15455A. NAVORDSTA filed a permit renewal application prior to the permit expiration date, which has enabled the facility to continue discharging under the old permit. The U.S. EPA is preparing a draft permit (renewal) with modification to be available for public comment in 1985. The permit will include a compliance agreement that will incorporate NAVORDSTA's and NAVEODTECHCEN's industrial wastewater treatment.

J-2 Cultural Resources

NAVEODTECHCEN is included in the Navy's Cultural Resource Management Program, which was instituted to meet the requirements of the following:

- National Historic Preservation Act.
- Archaeological Resources Protection Act of 1979.
- National Environmental Policy of 1969.
- Executive Order 11593 -- Protection and Enhancement of the Cultural Environment.

A cultural resources survey was initiated at NAVEODTECHCEN in 1984 to fulfill the requirements of the regulations listed. The survey will be completed in fiscal year 1986.

Section: J
Revision: 0
Date: 30 July 1985

J-3 Closed Sites

COMAR 10.51.07.01B requires a controlled hazardous substances permit for a facility that is no longer operating, but which was operated to permanently contain controlled hazardous substances. The Department of Defense (DOD) was given responsibility for identifying and remediating DOD disposal sites under the 12 August 1983 DOD-EPA Memorandum of Understanding (MOU) for implementing the Comprehensive Environmental Response, Compensation, and Liability Act of 1980. The Navy Assessment and Control of Installation Pollutants (NACIP) Program (the Navy's version of the DOD Installation Restoration Program) was instituted to identify and remediate closed sites.

A NACIP Initial Assessment Study (IAS) was conducted at NAVORDSTA and NAVEODTEHCEN in the summer of 1982. The IAS was completed in May 1983 and formally submitted to the U.S. EPA, Region III and the State of Maryland on 20 July 1984. There were no sites at NAVEODTEHCEN which required a NACIP confirmation study.